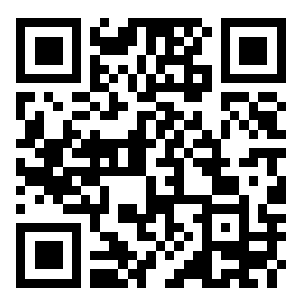
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Hardware and Machinery

With which is Incorporated "The Australasian Ironmonger, Engineer and Metal Worker" Established 1886

Australia

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VOL. XLII. No. 1

JANUARY 6, 1927

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HARDWARE AND MACHINERY

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"THE AUSTRALASIAN IRONMONGER, ENGINEER AND METAL WORKER"

Established 1886.

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Subscription—10/- per annum.

For 30/- per Annum we will supply (in addition to above) The Ironmonger (London), weekly, and a copy of The Ironmonger Diary. All Post Free. Single copies 1/- each. Subscriptions payable in advance.

Advertisers will kindly note that all alterations to Advertisements should reach us by the 25th of the month.

Change of Name.

The Vacuum Oil Co. Pty. Ltd. have changed the name of their mineral turpentine from "Nuturpo" to "Petropine." There is absolutely no alteration in the quality of the product, the change being merely in the name under which the product will be sold."

Tell the Truth.

(From an Exchange.)

Tell the truth. Let others muster
All the brag and bluff and bluster.
But for you the gentle lustre
Of the simple fact, in sooth;
Oftentimes one's fancy rollicks
Into fervid hyperbolics.
Curb, oh, curb such verbal frolics,
Tell the truth!

Though the plain and fancy liar
May rope in the trusting buyer,
He will feel, in time, his ire
Sharper than a serpent's tooth,
And in spite of all endeavour
He will lose that trade forever
Just because he'd never, never
Tell the truth!

Don't let idle fancies revel,
Tell the truth and shame the devil,
Let your ads be on the level
To the eyes of age or youth.
Tell the truth, and don't get off it,
Foolish advertisers scoff it,
Wise ones stick to facts—and profit!
Tell the truth!

Tercentenary of Leeds.

Within the past year Leeds, the home of the English woollen industry, celebrated its municipal tercentenary, its first charter having been granted in 1626. "The Empire Mail" of July last devotes a special section to the place, various writers being enlisted to narrate its history and describe its leading features.

A farming village at the time of the Norman conquest, Leeds attained city status in 1893 and at the census of 1921 returned a population of 458,232. It is one of the newer seats of learning in England, Leeds University having been founded in 1904.

Situated in the heart of the West Riding of Yorkshire, the city is far from the sea but inland waterways connecting it with the coast have promoted its industrial development. The rivers Aire and Calder have been dredged and straightened and canals cut at various points so that in comparatively shallow and sometimes in special vessels the manufactures of the inhabitants may reach the ports on the Ouse and Humber. At Goole the city has its own port connected by rail as well as by water, and hopes of a canal from the seaboard deep enough to bring big steamers right up to the city are entertained by the city fathers.

As already suggested Leeds is known the world over in connection with the manufacture of woollen cloths and clothing. But the city is also a great engineering centre with firms of long standing and wide repute. Outside metals, again, a great many people are employed in connection with the leather, glass and pottery industries. Quite a number of manufacturing firms tell their own story in the publication from which most of our facts are taken. These include in the order of their appearance Kitson & Co. Ltd. (locomotives), Henry Berry & Co. Ltd. (hydraulic machinery), the Kirkstall Forge Co. Ltd. ("England's oldest ironworks"), Clayton, Son & Co. Ltd. (gasholders and oil tanks), Hathorn, Davey & Co. Ltd. (pumping engines), Harding, Rhodes & Co. Ltd. (textile machinery and appliances), Fairbairn, Lawson Combe Barbour Ltd. (also textile machinery), and John Fowler & Co. (Leeds) Ltd. (agricultural machinery). The notes throughout are well illustrated and form a very interesting section.

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Foreign Exchanges.

Foreign rates of exchange in London for cable transfer on the centres and dates indicated, compare as follows:—

Par.	—	—	Dec. 20	Dec. 23	Dec. 28	Jan. 3
4.866	New York	Dols. to £	4.85⅛	4.85⅜	4.85 7/16	4.85 7/16
4.866	Montreal ..	Dols. to £	4.85⅜	4.85 7/16	4.85½	4.86
25.225	Paris	Frcs. to £	119.93	122.25	122.37	122.80
35.000	Brussels ..	Bels. to £	34.88	34.88	34.89	34.89
25.225	Rome	Lire to £	106.87	108.00	107.63	107.87
12.107	Amsterdam	Florin to £	12.13	12.13½	12.12⅜	12.13/16
12.107	Batavia ..	Gul. to £	12.12	12.10	12.10	12.10
18.159	Stockholm	Kron. to £	18.15	18.15	18.15	18.16
18.159	Oslo	Kron. to £	19.27	19.29	19.18	19.06
18.159	Copenhagen	Kron. to £	18.21	18.21	18.19	15.20
20.43	Berlin	Gmks. to £	20.38	20.37	20.37	20.40
24	Calcutta ..	Pen. to rup.	17/16	17 1/16	18 1/16	18
24.58	Yokohama	Pen. to yen	24⅛	23⅞	23⅞	23⅞
*	Hongkong	Pen to dol.	23⅝	24⅛	24 1/16	24⅛

* Par depends on rise and fall in price of Silver.

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A Certain Seller

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Editorial

The Time Payment System

One of the gentlemen who served Australia as Trade Commissioner in the United States had much of interest to tell on his return from that country. He said, for one thing, that American merchants had reduced time payment to a fine art. Comparatively few of the automobiles going into use from week to week were sold for cash. On about 80 per cent. of them, he found, payment was spread over a term of years. This was some little time ago. To-day a similar state of things obtains in Australia. Motor cars are being sold on time payment in growing numbers, and the system is being applied to many other fields of service.

That time payment involves certain risks and abuses is obvious. The gentleman referred to was quite alive to this aspect of the case. So long as American factories were humming with activity payments could be met and everything work out satisfactorily, but let slacker times come—something in the nature of a trade slump—and the motor trade would be hard hit with repercussions in many other trades. With such an immense home market he did not expect anything like an industrial crisis, but many people would be seriously embarrassed and used cars by the hundred would revert to the sellers.

Although nothing like depression has visited America, it now seems that "instalment selling" has been carried to excess there, and that in the motor trade especially a tightening up became imperative and has been applied. Everybody was complaining —manufacturers of limitation caused by the higher prices of time-payment cars; dealers of second-hand vehicles offering at ruinously low prices; and finance companies of loss of profit on the one hand and goodwill on the other. Their competition for this class of business pleased neither the manufacturers nor the merchants. The whole system, moreover, is being scrutinised critically. While some business men are satisfied that it has benefitted the country economically and socially, others have grave doubts of any lasting benefit from such a way of doing business. In a recent issue, "Hardware Age" had a discussion of the whole subject by certain representative men. Among these were Mr. William H. Pouch, president of the Concrete Steel Co., and also president of the National Association of Credit Men from whom we quote the following sentences:—

"Instalment selling, in my opinion, does not tend to stabilise production; on the other hand, I believe that it is an inducement for inflation to allow people to spend more money than they earn. The buyer should most assuredly save before spending. It is a very dangerous principle, I believe, to teach the public to spend their future incomes. For many generations our leading bankers and captains of industry have been urging people to deposit their savings in a savings bank, take out life insurance to protect themselves and their families in the future, and buy homes so as to become property-owning citizens. During the past year this has all changed and the instalment fiend now aims to upset all these conservative principles and preach a policy of spending to the limit and mortgaging future incomes for the sake of increasing his production. Undoubtedly instalment selling does increase production, and increased production brings high wages, and high wages, if not properly controlled may mean reckless expenditures, and thus may bring on inflation. I would rather see industry proceed on a more solid and conservative basis, because we will not have so far to fall when the cycle swings the other way."

We have a large measure of sympathy with the views quoted above. Without going so far as to say that time-payment should have no place in the business world, we think it can be safely applied only within strict limits and under strict conditions. The practical obligation to make a fixed payment by a certain date may induce some people to "save" money which otherwise they would have "spent" and ultimately place them in possession of a coveted article. But, speaking generally, these are the unthrifty people and too often the coveted article is in the nature of a luxury which they should never have been encouraged to acquire. The system may stimulate production for a time, but to set it forth as economical seems to us an abuse of language. Time payment spells long payment as well as risky payment. The man with the money can always command the shortest price. In America, as shown above, one of the complaints of motor car manufacturers turned on the prices charged by time-payment dealers. These prices were high enough to affect output adversely—so the makers believed. As a general rule people should be encouraged to pay cash for their purchases, or buy within their means. For the individual and for the community as a whole—manufacturers and merchants included —that is the soundest policy. With "time payment" and "lay-by" systems comes danger of demoralisation not only to the market, but, what is of greater importance, to the people.

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Industrial Mission to America

It was announced during the month that two women "observers" are to accompany the Australian Industrial Mission to America. This mission, representative of employers and employees, is to view on the spot and through Australian eyes "America at work" in factory and foundry and report in due course to the Commonwealth Government, which bears the expense of the whole enterprise. Hitherto men only have been spoken of as delegates, but the various organisations of women throughout Australia have now been asked to submit the names of five of their number and from these the Government will make a selection of two. No time for the visit has yet been fixed nor have the names of the men to represent capital and labour been announced. Here, again, from nominations made by the respective interests the Government will finally select and appoint. Seemingly these two women will not have the same status as the regular members of the mission, but they will accompany it to "observe" and report upon American industrialism as it affects specially their own sex.

While admitting the possibilities of such an inquiry and wishing the inquirers nothing but good, we find ourselves wondering if much of a practical nature can be expected from it. That it will produce a readable report we have no doubt at all, but can it be expected to influence the course of industrialism in this country? As between Australia and America the delegates will find different means and methods, a different outlook and policy on the part of organised labour. But they know, or may know, all that without going to America. Take payment by results for one thing. That system obtains widely and works well in the United States. In Australia, on the other hand, piece work is the exception rather than the rule because on the side of labour it is regarded with disfavour and distrust. Doubtless trades unionists believe they have good reason for this hostile attitude, but their opposition is not due to ignorance of American experience in the matter. Leaders of labour know as well as others what is taking place elsewhere, better than many others indeed. And so with other questions, including the "open shop." Henry Ford is only one of many employers who do not trouble, and do not need to trouble, whether the men they put on are unionists or non-unionists. Under the same roof both classes set to work to earn as many dollars as possible. They feel themselves to be parts of the undertaking with a direct interest in its success. Denunciation of the "capitalistic system" which would be received with applause in Australia leaves the American workman cold. Appeal to him as a "wage slave" and he would resent it. He considers himself a contractor working for a principal, and desires freedom to produce his utmost and be rewarded accordingly.

"We observe that with the expiration of every contract the workers put forward a claim for higher wages, but the fact must not be overlooked that no one can obtain more compensation from a business if the compensation itself is not there, and it is an old statement that you cannot take from an industry something that you have not assisted in putting into it. . . . . It is important that the following fundamentals should be recognised:—First: The ownership of property is a principle unescapable. Second: Savings accruing from thrift should be compensated by adequate interest in order that thrift may be encouraged and industry maintained in a healthy condition. Third: Replacements covering depreciation of and enlargement of business are things essential to the well being of employees and must be taken into consideration." Who with any knowledge of industrial Australia could expect a Trades Hall leader to speak like that? Yet these are the words of a man who has been president for many years of one of the largest and best organised unions in America, words spoken to his fellows in congress assembled. So uttered they suggest a radical difference of attitude and outlook. American labour is less tinged with socialism, and the workman of to-day never forgets that he may be the employer of to-morrow. Why should he grieve at the good of a Field or a Ford or throw stones at either of them? The path they trod is open to him always provided that he can "deliver the goods."

All this is known, we repeat, without sending a mission across the seas, and if the Federal Ministry expect a sight of Uncle Sam with his coat off to convert Australian labour to American ways they are very sanguine. Apart, however, from questions of what may be called principle or policy there are many matters of buildings and equipment, of arrangement and administration, where a careful inspection of American factory life should be of distinct service to Australia. They have been longer at it than we for one thing, and they have been readier than some other and still older manufacturing countries to adopt anything in methods or machinery that promised better results.

Borrowings.

Two-thirds of promotion is motion.

Even a mistake proves that someone tried.

It is more profitable to know than merely to wish to know.

One man is always right. He is the fellow who is sure he can't.

Sooner or later the man with a pull is ousted by the man with a push.

Business is waking up to the fact that a better outlook depends largely on a better lookout.

You are one of the channels in the great arterial system of commerce. Don't block the channel.

Increased turnover of merchandise is good, provided it doesn't cut stocks to a point where it increases the turnover of customers.

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Correspondence

A Question of Membership.

To the Editor "Hardware and Machinery."

Dear Sir,—Should a representative of British and foreign firms be eligible for membership of "The Australian Association of British Manufacturers and their Representatives?"

My opinion is that they should not be allowed this privilege.

At the annual meetings of this Association mention is made of the authorities in Australia using foreign goods. I would like to ask these questions: How many members own foreign cars; how many open their office doors with British keys, and, to come perhaps a little closer, how many cover their heads and feet with British made hats and boots respectively?

Perhaps some of the members will answer these questions through the columns of your journal.—Yours etc.,

Albert Adams.

277 Clarence-street, Sydney.
December 17, 1926.

The Timely Habit.

To the Editor, "Hardware and Machinery."

Sir,—The extract in your December issue from an American contemporary, regarding being on time for work is well worth repeating.

Leading authorities have proved by actual tests that the best work is done before midday, yet we find many employers even who cannot apparently realise this. The old saying "A busy boss makes a busy employee" might well be altered to read: "An early (or punctual) boss makes a punctual employee."

How many men there are who as soon as they get into responsible positions, become slack as regards punctuality. This affects many, though probably not all of the employees under their control, and half an hour or more of the best hour of the day is wasted. The writer is satisfied from experience in various trades that an early start is worth about double the same amount of time added at the close of the day's working time.

It would be interesting to hear the experience of others in this connection.—Yours etc.,

Turnscrew (56/198).

"Turps" and Mineral Turpentine.

To the Editor "Hardware and Machinery."

Sir,—The note of "J. Knibb" on the use of the term "Turps" as indicating something other than true turpentine is somewhat surprising, and adds another to the long list of erroneous and confusing local names which are so much to be deprecated.

The term "turps" has been in general use for many years as a "short" for turpentine. Originally no doubt a workshop diminutive, it has spread to the trade, both wholesale and retail, and to use it to apply only to a turpentine substitute, is incorrect. It should not be encouraged, since few people understand it to be so restricted. Mineral turpentine is certainly not a turpentine as defined and understood by scientists and commercial men for centuries.

I should be glad if one of your learned correspondents will inform me of the composition and properties of what is now supplied as mineral turpentine, and in what it differs from true turpentine, in solvent properties, boiling point, etc.

I certainly think that this substitute should be sent out by all traders fully labelled for what it is. If one orders turpentine and receives the mineral spirit, he is not getting an article of the nature, kind and quality demanded.—Yours, etc.,

H.AW. (18/199).

Sydney, December 23, 1926.

Inquiry Column

TRADE INQUIRIES

During the month we have supplied answers to the inquiries indicated below. Firms with whom we have not already communicated who hold any agency connection with the firms, or handle any of the lines mentioned in this section, are invited to furnish us with particulars so that our lists may be complete.

INFORMATION SUPPLIED.

Cyclops Children's Vehicles.—Name and address of manufacturers supplied.

"Liverpool" Gas Stoves.—Name and address of manufacturers supplied.

Rotary Clothes Hoist.—Name and address of manufacturers supplied.

Animal Trap Co., Oneida, N.Y., U.S.A.—Name and address of agent supplied.

"Robbialac" Motor Paints.—Name and address of Victorian agents supplied.

Brass Cocks for Gas Stoves.—Name and address of manufacturers supplied.

Burns' Bread Saws.—Names and addresses of makers and agents supplied.

Ladd Egg Beaters.—Names and addresses of manufacturers and agents supplied.

Stover Mfg. & Engine Co. (household hardware).—Name and address of agent supplied.

L. R. Nelson Mfg. Co., Peoria, Ill., U.S.A. (lawn sprinklers).—Name and address of agents supplied.

INFORMATION WANTED.

"Zero" Ice Chests.—Name and address of maker or agent wanted.

"Optimus" Burning Off Lamp.—Name and address of agent wanted.

Silos Washing Machine (German).—Name and address of agent wanted.

Deming Co., Salem, O., U.S.A. (Pumps).—Name and address of agents wanted.

Purcell Bros., Birmingham (electro-plated ware).—Name and address of agents wanted.

Bamfords Ltd., Uttoxeter, Eng. (oil engines).—Name and address of Victorian importers wanted.

Parkgate Iron & Steel Co., Ltd., Parkgate, Rotherham.—Name and address of Australian agent wanted.

Bending Machine for 18g. Sheet Iron, etc.—Name and address of maker or supplier in Melbourne wanted.

Sir W. H. Bailey & Co. Ltd., Manchester (steam pressure gauges).—Name and address of representative wanted.

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Sundry Credits

By J. Knibb.

A Doubtful Eminence.

A cablegram which says Great Britain owes the United States £932,000,000, while France, Italy and Rumania taken together still owe Great Britain £1,099,000,000 is headed by one of our daily papers "Britain's Superior Position." Superior? On paper, perhaps. But does any Australian journalist really believe that John Bull is likely to collect from these Continental debtors of his more that he will pay over to Uncle Sam? We shall see, I was going to say. No! We shall not live to see. But editors now unborn will be able to tell their readers how much of these enormous war debts proved recoverable and how much didn't. When that time comes Britain's superiority, I venture to prophesy, will be found to lie in paying out.

* * * *

Youth at the helm.

An American paper which came into my hands has a stimulating story of a young man named Paul Ungrodt. His father has for forty years run a hardware store in a little town called Washburn. The son graduated at college and then came to his father's assistance. So successful was he in prosecuting the family business, and so pungent incidentally in denouncing municipal extravagance that at twenty-three, and without his seeking the office, he found himself mayor of Washburn. That was three years ago. Meantime, he has brought up the revenue and cut down the expenses of the town while reducing the municipal overdraft considerably. At the end of two years he was re-elected to the mayoralty, unopposed this time, and his return to the State Assembly of Wisconsin is likely to follow should he be willing to shoulder further public responsibilities.

* * * *

Gone to the Dogs.

Had a certain actor, well-known in Australia, remembered the proverb about the cobbler sticking to his last it would have been better for him, financially at least. Before the Bankruptcy Court, in London, he said his liabilities were £44,311 and his assets £13,915, but that the whole of this had to go towards a preferential claim for taxes amounting to £15,013. With plays of his own writing he had been engaged during recent years at £150 and £200 a week, and between 1916 and 1924 he had received in royalties and salary at least £140,000. A large part of his income seemed to have been lost in a scheme for breeding and running greyhounds. He started it in 1914 and in 1919 bought a property in Gloucestershire for the same purpose. Eventually this enterprise involved him in a loss of about £5000 a year. "One man in his time plays many parts."

* * * *

Swat that Fly!

A fly-killing match open to boys and girls was recently promoted by a daily paper in Melbourne, cash prizes aggregating £15/15/- being offered for the best "catches." Not that Melbourne is the worst place in Australia for the fly pest, but that the Melbourne press is the most———. Swats and fly papers were in great demand during the currency of the competition, and some of the boys especially showed themselves wonderfully inventive in the arts of destruction. No salt on the tail for them. They were too "fly" for such old methods. The dead flies were weighed not counted. Whether the returns were analysed also to determine their relative "purity" does not appear. Nor what became of the dessicated bodies. But certain housewives, I understand, have been feeling and saying that the last currants they had from the grocer contained a good deal of foreign matter.

* * * *

Business Secrets.

Sarah Gamp, you will remember, talked much of a mysterious Mrs. Harris, and Betsy Prig nearly deprived the honest woman of speech one day by suggesting that there was "no sich person." Sir Ernest Benn goes nearly as far in his scepticism regarding business secrets. "It is commonly supposed that business is one maze of secrets; a supposition that is now largely false. There is no more absurd hoax than the business 'secrets,' and the idea should be knocked out of the public mind. It consists to a large extent in the gifts or innate qualities of individuals. Thus, a very important secret of success in business rests in understanding the art of employing, in the power to attract to oneself others who are willing to carry out their duties as directed with efficiency and goodwill, the one being almost as important as the other."

* * * *

An Atrocious Word!

"We must insist on the removal of the atrocious word Australasia," said one of the speakers at a conference of New Zealand Chambers of Commerce. He was speaking in support of a protest against the omission of the name "New Zealand" from the title of a steam navigation company which does business with New Zealand and is subsidised by its government. From the Dominion standpoint I can quite understand this objection to the inclusive name "Australasia" which carried no suggestion of the Dominion. It suggests Australia but not New Zealand. That's the trouble. It suggests Australia to the exclusion or inclusion of New Zealand, and the New Zealander with a pardonable pride in hs own attractive country naturally objects to this effacement. His sentiment does him honour. Yet from the practical and newspaper standpoint the need of a term wide enough to cover both countries is very great indeed. If we poor journalists are to avoid "Australasia" as "atrocious" what can we be offered in its place?

* * * *

A Stroke of Genius!

Casting about for an acceptable alternative to the much-criticised "Australasia" one recalls with mixed feelings the name taken to themselves by the soldier sons of both countries early in the Great War. Considering that most of them had never "smelt powder" in the military sense, the great spirit in which they faced that ordeal is and always will be something to cherish with admiration. On Gallipoli they received their baptism of fire as the Australian-New Zealand Army Corps, and seizing on the initials as these met the eye on packing cases and what not they coined the word "Anzac." A stroke of genius, I call it. Short, euphonious, fitting like a glove, the term caught and held. The "Anzacs" they were to each other; the "Anzacs" they became to an admiring world. That world included their respective countries, for the Dominion was as pleased with it as the Commonwealth, and the people of both are determined that this coinage of the battle-field shall not be defaced by market-place associations. Orders have been passed preserving it from all "base uses."

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Novelties and New Samples

Australian Mops and Polishes.

Elsewhere in this issue will be found particulars of mops and polishes which an Australian firm are placing on the market. The "Punch" polish mop, a triangular article for effectively cleaning corners, is made in three sizes. Polish for use with the mop is also made, and water and sweeper mops bearing the same brand are available.

The makers are the Punch Mop & Polish Co., of 112 Gawler-place, Adelaide, while in the other States of Australia the agency has been entrusted to Mr. A. G. Kelley, 860 Nicholson-street, North Fitzroy (Victoria); General Utilities Ltd., 337 Kent-street, Sydney (New South Wales); Manufacturers' Agency Ltd., Barnes Buildings, Roma-street, Brisbane (Queensland); and Foster, White & Co., Trustee Buildings, Perth (Western Australia). The articles are sold through the wholesale hardware houses.

American Glassware.

Mr. Louis A. Scott, representing the United States Glass Co., 200 Castlereagh-street, Sydney, who returned early in December from a business tour of the Dominion, has since received some new designs in black satin glass from these manufacturers. A smart trough or console set with figure decoration in relief, suggestive of Wedgewood design, for carrying flowers, is the most noteworthy of the innovations. Fan vases, baskets, ash trays and box ends more or less decorated in bas relief, are very elegant. A variation in the black satin glassware is a finish in Kimberley design which has glazed or bright ribbon lattice effects set upon the satin background. Yet another known as the "Echees" design, introduces bright or glazed squares on a satin ground and with gold border. Another novelty is a finish called "Jack Frost," which is unusual and realistic, and is produced in various tints or colours for flower bowls, fruit stands and other articles

British and Continental.

J. L. Walters, Ltd., of 222 Clarence-street, Sydney, are displaying new ranges of samples on behalf of Thomas Ibbotson & Co., Sheffield, comprising table cutlery, carvers, canteens, cabinets, scissors and pocket cutlery. During the past two years these manufacturers have made a special feature of carvers in a wide selection of tastefully arranged cases and canteens, and their table knives are noticeable for fine hand ground mirror finish.

Schoonhoven-Gouda are represented by an excellent collection of Dutch art pottery in exclusive designs, together with many popular shapes with new decorations and colourings.

The Royal Watcombe Pottery, England, are also well represented by a goodly range of standard lines, in which there are innovations in designs and decorations, while from Muller & Co., Wurttemberg, Germany, is a large display of clocks comprising grandfathers, regulators, brackets, cuckoos, black forest, xylonite, metal, and a large number of fancy clocks, and various classes of alarms.

New Insulating Paper.

A paper that is more durable than iron under severe tests has been invented by engineers of the Westinghouse Electric and Manufacturing Co., East Pittsburgh, Penn., U.S.A. This material, which is known as "Micarta," has great possibilities and can be used in almost every field of service. It was invented to supply a pressing need for an insulating material of structural strength, and, unlike varnished fabrics and tapes, it is self-supporting and has found instant application in the building of electrical machinery.

The importance of "Micarta" so far as its use as an insulation material for electrical apparatus is concerned, has become secondary when compared with the important uses to which it has been put in many other industries. It is being used in the manufacture of silent gear drives, and machinery of every size, if needing silent gears that are shock-absorbing, have been fitted with "Micarta" gears. A large washing machine manufactory in America is equipping its washers with a small "Micarta" pinion, and a large paper mill is using "Micarta" gears, 6 ft. in diameter, to drive its machinery. In the motor car field "Micarta" finds application in the silent timing gears of some of the leading makes of cars. It is also being used largely in the radio industry, and panels, coil-tubes and condenser-parts are being made from this durable and insulative paper. A manufacturer of loose-leaf books is using this material for covers on account of its durability and high finish.

Because of its insulation value, low moisture absorption and the small change of dimension caused by variations in temperature, "Micarta" is being used by large manufacturers of automatic telephone equipment. It is also being used for making pump washers, and fan blades where quiet operation is desired. Although "Micarta" is made of paper, it will not absorb oil or water, it machines accurately and can be drilled, tapped, sawed or punched; is hard, resilient, will not warp, expand or shrink with age, and takes a high polish. It is this strange and uncommon combination of desirable properties that has found for "Micarta" such a multitude of uses.

A Comprehensive Range.

Mr. P. Clifton Jones, having secured the Australian agency for several manufacturers, has opened an office and sample rooms at Australia House, Carrington-street, Sydney. Mr. Jones was long associated with E. Rich & Co. Ltd., Brisbane, and Feldheim Gotthelf & Co., Sydney, and was appointed general manager of the last mentioned firm for winding up purposes when they went out of business some years ago.

For Thompson Bros., Birmingham (incorporating Napper & Davenport), Mr. Jones holds a complete range of "Chieftain" brand aluminiumware; also porcelain white bathroom fittings on aluminium base, among which are included complete sets comprising towel rail and brackets, toilet paper holder, two coat hooks, tooth brush rack and tumbler ring complete with screws, all nicely packed in boxes. These can be had in either porcelain, white or polished aluminium. Another line by this firm are porcelain white metal cabinets with bevelled plate glass mirror and shelves, and nickel plated fittings. As manufacturers of the "Digby" rotary knife sharpener, Thompson Bros. are particularly well known in these markets. Variations of this knife are now shown with six pairs of nickelled steel fine-edged wheels, with black, ivorine and N.P. handles.

J. H. Potter & Sons, Ltd., Sheffield; are manufacturers of cutlery. silver and E.P. ware. They feature stainless knives in various grades from the lowest price up to their well known "Rockingham" plate; also stainless nickel spoons and forks at low prices. exceptionally well finished, and offer special quotations for quantity buyers. A novelty known as the "Utility" regd. spoon is so shaped and made with slots in the bowl as to be useful as a beater, lifter, strainer, skimmer and server. It is made in

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three grades, viz.: Nickel silver, A1 and A plate. Cased carvers, spoons. forks. bread knives. and pie servers are inc. .ded in the range of these manufacturers as well as a good variety of pocket cutlery.

Atlas Shear Co., Bridgeport. Conn., U.S.A., are manufacturers of the "Atlas" brand cast shears and scissors, together with barber's shears and tinsmen's snips. An innovation is the "Crucible" brand patent lock-screw straight primmer shears for dressmaking and general cutting purposes. A turn of a pivot screw either to the right or left will tighten or loosen the blades as required, and the construction is such that any adjustment made will stay set. Each pair of shears is enclosed in an envelope, and they are put up in attractive cartons of half dozens. They can be supplied in two finishes, either fully nickel or nickel plated blades with japanned handles.

Carl Dierkes, Remscheid, Germany, is represented by tools of trade in which all kinds of pliers are specially featured, and are of extra quality with fully polished heads. A combination plier with insulated and ribbed handles for the use of electricians is noteworthy. All this maker's goods are quoted c.i.f. any Australian port, which will enable buyers to make up their costs.

Emil Speck, of Schwenningen, Germany, specialises small clocks of a style and size principally for bedrooms and boudoirs. The range shows a large variety of cases finished in nickel, brass, galalith, imitation marble, wood and earthenware. He makes a speciality of advertising clocks bearing advertisement on an enamel front below the face of the clock. Names of firms or short announcements are printed in this way for a small extra charge.

Gustav Hussels, Solingen, Germany, is represented by a range of table and pocket cutlery, scissors, razors—both ordinary and safety—shearers' sets, pruning shears, hair clippers, bottle openers, and other lines.

John Beswick, Longton, England, presents a large collection of fancy earthenware, of which he is the manufacturer. Vases, rose bowls, flower pots, jardinieres, cheese covers, salads, jugs, and toilet sets are also shown. For the most part the decorations are entirely new; one vase depicting an Eastern scene is very characteristic, and we are informed that this manufacturer originated the black and rose combination, of which a good collection is shown.

Schonwald China Factory, Bavaria, Germany, with large works at Schonwald and Arzberg, produce china ware of practically every description. Among their immense range is a line of 21-piece tea sets, with tall shaped cups and saucers, which are quoted at a particularly low price. Dinner and coffee sets, dessert, hotel ware, salads, berry sets, fluted and fancy jugs, lustre ware and nursery articles are among the many competitive lines which they are offering, while a fine assortment of perforated and filagree dishes, baskets, plates and other lines in various decorations is also on view.

E. Matejka, Bohemia, offers some fine quality and good colour cut crystal glassware. Among a range of vases is noticed trumpet or English shapes, while bowls, powder boxes, jugs, goblets, comports, trinket sets, plates and pickle jars form a most attractive range. These goods are quoted f.o.b. Hamburg, free cases and packing.

Electrical Notes from Melbourne.

By F.M.B. (46/141).

December has proved a very successful month for most electrical shops. People have become accustomed to making gifts of useful articles, and these to a large extent were "electrical." Electricity has become a household word, and many people are using it in their homes. This, together with the advertising now made by electrical firms, is probably the reason for the electrical "boom" this Christmas.

Victoria nearly had its first experience of the "results" of a Yallourn strike, during the month, but considerable relief was felt a few days before Christmas when an accommodation was reached. Although not affecting directly the users of small electrical appliances, the proposed power restrictions would have entailed much worry and concern to those employed in many industries, where the current was to have been cut off part of the working week.

Asked what lines were the best sellers for the Christmas rush, salesmen say that the demand is wider now than ever before. Torches are popular with boys, especially, and along with batteries and refills, were purchased by holiday makers. Other lines, such as irons, kettles, toasters, lampshades and table lamps were well patronised. Fans and, in a few cases, cookers, vacuum cleaners, and other more expensive articles had also a limited sale.

It is expected that during 1928 the Sugarloaf-Rubicon electric supply scheme will be in operation. This will add yet another link to the chain of Victoria's industrial history.

Travellers

In New Zealand.

Mr. S. C. Maxwell, of Colin Maxwell & Co., 204 Clarence-street, Sydney, who has been in New Zealand for the past eighteen months on behalf of his firm's principals, Ahrem's "Good Line" tools, returned to Sydney on December 10.

Mr. A. J. Roberts, of J. W. Roberts & Son, Fayworth House, Sydney, representing Josiah Wedgwood & Sons, John Walsh Walsh, and other pottery and glass houses, will be in New Zealand during January and February, arriving in Auckland about January 3. Communications may be addressed care of the New Zealand Express Co. Ltd.

In Victoria.

Mr. J. L. Walters, of J. L. Walters, Ltd., 222 Clarence-street, Sydney, will be at Commerce House, Flinders-street, Melbourne, from February 7 to February 28; at 95 Grenfell-street, Adelaide, from March 3 to March 11, and at Cadd's Rooms, Murray-street, Perth, from March 17 to 25.

Mr. Percy A. Lyttle and Mr. F. L. Westaway, of Walter A. Cox Ltd., 195 Clarence-street, Sydney, left by the s.s. "Karoola" for Melbourne and Adelaide on January 1, carrying complete ranges of samples from the various manufacturers represented by that firm. Their address will be c/o Commercial Travellers' Club in both cities.

Mr. Percy Andrews, from Mr. James Henderson, 204 Clarence-street, Sydney, opened at Commerce House, Flinders-street, Melbourne, on January 3, a full range of new electroplated goods on behalf of Cooper Bros. & Sons, Ltd., Sheffield, together with samples of pottery from Wood & Sons, Ltd., and Gibson & Sons, Ltd., Burslem, England.

To and From Europe.

Mr. J. K. Merritt, M.L.C. of Victoria, left by the R.M.S. "Comorin" early in January for a trip to Great Britain. He is accompanied by his wife and daughter.

Mr. H. Harford, of Harford Ltd., Danks-street, Waterloo, Sydney, returned early in November from a visit to America and Europe, where he paid particular attention to the latest developments in the engineering and kindred trades

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Personal and Social

Re-elected to Office.

At a meeting of the Council of the New Zealand Association of British Manufacturers and Agents held on the last day of November, Mr. G. H. Scott was re-elected president, and Messrs. C. W. Salmon and B. J. Dunsheath vice-presidents for the ensuing year.

Death of a Safe Expert.

Mr. L. L. McDermott, who died at Neutral Bay, Sydney, a few days before Christmas, was for many years safe expert to S. Hoffnung & Co. Ltd., and the Rotex Safe Co. Ltd. Many of the strong rooms in the various banks throughout New South Wales are of his installation, and he was the inventor of a patent safety bolt. He leaves a widow and one daughter.

Death of Mr. P. H. Meeks.

News comes of the death at Perth, Western Australia, on January 3, of Mr. Phillip Henry Meeks, eldest son of the late Mr. Henry Meeks, of Morris & Meeks, Melbourne. As a young man "Harry" Meeks was well-known in the hardware trade of the Victorian capital and presided at the meeting out of which really sprang what is now the Victorian Hardware Club. It is many years since he settled in the West

Three Score and Ten.

The death is announced of Mr. George Pearson, sen., of Granville, Sydney, at the age of 71 years. The deceased came to Australia in 1886 under contract to Hudson Bros., who had then established the Clyde Engineering Works at Granville, and remained in their employ until he retired some ten years ago. An old resident of the district, he was also one of the best known and mostly highly respected. He was a founder of the Sir Walter Scott Masonic Lodge at Granville, actively interested in Friendly Society work, connected with the Granville Friendly Society's Dispensary Board, and prominent in the Order of Druids. Mr. Pearson is survived by two sons.

Passing of an old Queensland Storekeeper.

With the death of Mr. James McCorley, Queensland loses a pioneer storekeeper who could relate stories galore, and was always interesting. Together with his bride, he opened in 1871 a general store in what is now Taroom. The couple journeyed overland, and it was an adventurous trip. Erected on the banks of the Dawson for another purpose, the building occupied by the young couple was called "Dawson Store." It was covered by flood in 1893. Droughts and depression of trade followed, and Mr. McCorley passed through a strenuous time. In the dwelling attached to the store was reared a family of ten children, who are now scattered far and wide. Mr. and Mrs. McCorley had some exciting experiences with the blacks in the early days. There was always an air of homeliness about the place, accentuated by the fine collection of fruit trees, and the vegetable and flower gardens. It was a welcome rest to many a bearded traveller, and in the olden days it was a loading centre to further back posts of civilisation, when the crack of the teamster's whip and the sound of the bells were loud in the land. Now the scene is changed, and in place of these old-time conveniences we have the garage and the speeding motor car. To hundreds of Queenslanders the changing of the name will mean a big break with the past, but the memory of this fine old pioneer and his kindly acts to the stranded wayfarer will live for many years. May he rest in peace.

Death of Mr. W. W. Forwood.

Mr. Walter Weech Forwood, who died at Sydney on November 23 was a well-known Australian manufacturer, the founder and head of the business long carried on by the registered company Forwood, Down & Co., Ltd., engineers, ironworkers and boilermakers, with headquarters in Adelaide and branches at Kilkenny and Perth and Kalgoorlie (W.A.).



Late Mr. W. W. Forwood

Born in London 80 years ago, the late Mr. Forwood came to South Australia with his parents in 1853, his father being a doctor of medicine. The son was destined for the sea, his mother's family having large shipping interests, but mechanics appealed to the youth, and in 1865 he apprenticed himself to the Colonial Ironworks in Adelaide. With the expiration of his apprenticeship, he remained on as a journeyman, and when the proprietor died he and a fellow workman, Mr. T. D. Down, took over the business and carried it on under the firm-name of Forwood, Down & Co. The discovery of gold in the Northern Territory gave the new firm plenty of work, for mining machinery was in great demand. In 1897 the firm was converted into a company under the present name, the two founders holding practically all the shares. So it was until the death of Mr. Down, when Mr. Forwood acquired that gentleman's shares and distributed them among the members of his family. In the prosecution and development of the business within more recent years he had had the assistance of his five sons. Three of these survive him, and are connected with the business—Mr. Frank Forwood, who has been managing director for many years, and Messrs. A. H. and Edgar Forwood, who are both directors. Three daughters are also left behind, but the late gentleman was predeceased by his wife, his eldest son and his youngest son, the latter, Lieut. Forwood, being killed in the Great War.

Apart from his own business, the late Mr. Forwood had many interests. Almost from its inception, he had been a member of the South Australian Chamber of Manufactures, and on three different occasions had been president of that body. He had also been president of the Associated Chambers of Manufactures of Australia. For sixteen years he served on the Adelaide City Council, half that time as an alderman. As a representative of the council on the Municipal Tramways Trust, he rendered good service. He was a member of the Federated Employers' Council and also of the council of the Royal Agricultural Society of South Australia.

From a visit to America he had returned to Sydney, where he was taken ill, and the end came. A man of public spirit and generous disposition, he will be much missed in Adelaide and mourned by many friends in other parts of Australia. The photograph which we reproduce is dated 1922.

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News from Abroad

German Engines for South Africa.

According to cablegrams from Capetown on December 22, the Railway Board has given German firms orders for locomotives to the value of £500,000. It is stated that no purely British tenders were received. Some firms with British names submitted tenders, but their works are in Germany. The Minister says the administration is doing its utmost to run the railways on business lines, but it is always ready to give preference to British tenders.

Corundum in the Transvaal.

"Industrial and Commercial South Africa" records the registration of the Transvaal Corundum Co. (1926) Ltd., with a capital of £75,000. "The objects of the company are to acquire certain property, plant and mineral rights and to mine corundum. Next to diamonds, corundum is the hardest mineral. It is used for the manufacture of abrasive wheels. The concentrates are used in optical glassworks, and the preparation of corumdum cloth belting, etc. The principal buyers of corundum are the United Kingdom, Scandinavia, Germany, Austria, Italy, Switzerland, Belgium, France, Japan and the United States of America."

Engineering Firm's Difficulties.

Some time ago an expert committee was appointed in connection with the affairs of the great engineering firm of Sir W. G. Armstrong, Whitworth & Co. Ltd. The company are unable to pay their debenture holders and according to cable reports the committee request these—holders of 6½ per cent. second mortgage debentures, holders of three years 5½ per cent. notes, and holders of 6½ per cent. consolidated mortgage debentures—to grant the company a moratorium for five years. This would allow time for recovery, the interest on securities only to be paid from the profits. The company would not pay dividends until all the debenture holders had received their interest in full.

New German Insulating Material.

The American Trade Commissioner at Berlin reports that the Glisoma-Work in Schierstein on the Rhine, formerly known as Landsberg & Ollendorf of Frankfort, is manufacturing a new insulating material known under the trade name of "Peralit." The new product is intended to replace fibre, hard rubber and other insulating materials. It is built up of layers of certain materials, the nature of which is not reported, and subjected to very high pressure with application of heat. The insulating material has a high electrical resistance, and is said to keep its shape up to 200 degrees centigrade. It is not affected by oil, air or humidity, and is only affected by certain acids.—"News Bulletin" issued by the Commonwealth Department of Markets and Migration."

Big Department Store in South Africa.

A trade contemporary has an illustrated description of Harvey, Greenacre & Co.'s huge retail establishment in Durban, South Africa. Founded sixty years ago, "Greenacre's," as it is called, has grown from a tiny shop to be one of the biggest establishments of the kind in the country. The headquarters at Durban covers an acre of ground with fifty-seven different departments, and there are branches at Johannesburg, Ladysmith and other towns. So far as appears both the founders are dead, but they lived to find themselves looked up to as merchant princes and one of them was knighted as Sir Benjamin Greenacre.

During these sixty years Durban itself has grown from "little more than a village" to be a city of some one hundred thousand inhabitants, the seaport and largest town of Natal. The words quoted are from the article on which we have drawn. As a sober statistical fact the place in 1866 had a population of 4991.

Rubber in South Africa.

Within six months there is likely to be an important rubber industry in South Africa. The Premier Rubber Corporation of South Africa owns between fifty and sixty million euphorbia trees from which the latex for rubber is tapped. Samples were sent to London and New York, and last month Dr. Neufeld, a German scientist who examined the trees, received a letter from the Bureau of Standards (U.S.A. Government Research Department), stating that the department was favourably impressed. South Africa can now enter with confidence into the rubber markets of the world, as the trees are ready for tapping. The Union imports rubber in the form of motor tyres and other goods to the value of £1,500,000 a year. The new industry will give employment to thousands of natives, besides providing a career for many white youths. The South African rubber areas are free from fever, in marked contrast with the rubber forests of the Congo and Malaya. The rubber factories will be at King William's Town.—"Industrial and Commercial South Africa."

The Continental Steel Trust.

Among the many important economic changes which have taken place since the war, none is more significant than the recent creation of what is known as the Continental Steel Trust. The scheme has been under consideration by the leaders of the industry in Germany, France, Belgium, Luxemburg and the Sarre for some time, with the knowledge and approval of the Governments concerned, and the importance of the new agreement may be gauged by the fact that between them these countries produce nearly all the iron and steel at present produced in Europe outside Great Britain. Moreover, in 1925, the steel castings and ingots manufactured in Germany alone slightly exceeded the British production, and have largely exceeded it in the first half of the present year. The idea, it would seem, is to set up an organisation which will enable European producers to protect themselves against American methods. If the plan proves successful, it may be taken for granted that similar international "rings" will be formed by other industries. The immediate object of the cartel is to limit production and to restrict competition in foreign markets. The Trust accords to its members the possession of their home markets undisturbed by the other members. Naturally, as a great steel producing country, we are bound to examine most carefully how this new organisation is likely to affect our interests and to weigh the advantages and disadvantages of accepting the proposal that Great Britain should join the Trust. The principal objection to such a step is the view taken in certain quarters that our iron and steel trade is not yet ripe to enter an international organisation on equal terms. The industry on the continent is highly organised, while in this country it is only organised to a very small extent. At the same time it would be highly dangerous merely to adopt a negative attitude. The position is one which needs the most careful consideration with a view, if necessary, to prompt action in the future.—"The Empire Mail."

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Interstate General News

Fatal Grindstone Accident.

Through the bursting of a grindstone a metal polisher named James Carmichael lost his life at the works of the K. F. B. Foundry, Ltd., Waterloo, Sydney, on December 16. Carmichael was working at the grindstone when it flew apart and a fragment struck him on the head, killing him instantly.

C.O.R. in N.S.W.

The Commonwealth Oil Refineries Ltd., have acquired some sixty acres of land at Silverwater, fronting the Parramatta River, near Auburn. Here they intend to establish refinery and distributing works at a cost it is said of about £500,000. A seawall to hold back the tidal waters and a rail siding will form part of the work to be done.

Showrooms Gutted by Fire.

Metters Ltd., whose large showrooms in Elizabeth-street, Sydney, were gutted by fire on January 2, advise that they are fully equipped to meet all requirements from their factory in Alexandria, where they have a large stock of all their manufactures ready for delivery. They further advise having secured roomy premises at the corner of Goulburn-street and Wentworth-avenue, adjacent to their former premises, in which to continue business.

Factory on Fire.

On December 23 a fire broke out on the premises in Brown-street, Camperdown, Sydney, of Baker, McPherson & Co., sporting goods manufacturers, and before the fire brigade could get the flames extinguished damage approximating £3,000 had been done. The top floor of the three-storey premises was used as a storeroom, and it was here that the fire occurred, tennis racquets, boxing gloves, punching balls and other goods being destroyed in large quantity. Not only so, but the water poured on the burning goods flowed down to the other floors, seriously affecting the valuable machinery. The damage was covered by insurance.

Road-Making Plant for Tasmania.

On the recommendation of the Public Works Department the Tasmanian Minister for Lands and Works have decided to obtain from A. H. McDonald & Co. Pty Ltd. of Richmond, Victoria, six of that firm's super-Diesel crude oil road rollers at a cost of £1,235 each delivered, and from J. S. Kidd & Co., Pty. Ltd., of Melbourne, four pairs of Loadometers" at £175 per pair. These latter are portable appliances weighing only 43 lb. each, and can be used at any place on the road to weigh a truck up to 15,000 lb. Instead of being held up and sent to the nearest permanent scale, the vehicle suspected of carrying a heavier load than is permitted under the Traffic Act will be tested on the spot without inconvenience or loss of time.

Wire Mattress Making in Victoria.

Taking effect from December 17, an amended determination has governed employment in the making of wire mattresses throughout Victoria. The week's work remains at 48 hours for males and 44 hours for females, but the minimum wages of adult males now range from 111/6 (Boult's carver or shaping machine operators) to 89/6 (yardmen or labourers engaged in stacking timber) per week, while the wages paid to adult females must not be less than 67/- per week. The proportion of juniors of both sexes that may be employed is fixed by the award, and so also the rates to be paid on their account from year to year. Double rates have to be paid for work done on any one of eight specified public holidays and a 50 per cent. increase conceded for ordinary overtime.

Internal Rearrangements.

For some months past Chambers & Seymour Pty Ltd., have been engaged on extensive alterations and improvements to their building at 274 Flinders-street, Melbourne. The difference in internal arrangement and lighting is evident at once upon entering the shop. The builders' hardware department, which was formerly rather congested on the ground floor, is now located in a basement quite handy to the entrance. This removal allows better and more attractive displays on the main floor, the change from the old arrangement being most striking. The stairs from the back of the shop have been replaced by others more conveniently situated.

Steel framed windows have been fitted on every floor with the result that the lighting is vastly improved, while more modern methods of display and arrangement of stock still further enhance the effect.

The firm have added a paint department to their activities, while gas stoves and appliances have also been taken up and the electrical section is being extended. Mr. V. H. Moodie, late of John Danks & Son Pty Ltd., is now installed as manager.

Port Patronage in New Zealand.

A more equable treatment of Wellington in the matter of overseas shipping was urged in a letter from Van Staveren Bros., Ltd., to the Wellington Chamber of Commerce.

The excess of overseas steamers to Auckland, they said, was most marked. The arrivals in Wellington, of English and foreign shipping, from September 1 to November 14 were 33, and expected arrivals till January 2 were 25. Of this total of 58 vessels there were only six direct vessels with cargo for Wellington, five direct vessels, with passengers only, carrying cargo for other ports, three direct San Francisco mail steamers, and 41 vessels via Auckland, and two via the South. As Auckland had the same number of vessels via Vancouver as Wellington had from San Francisco this could be ruled out, but it seemed unfair to Wellington that six or seven times the number of vessels with cargo had Auckland as their first port of call.

The president (Mr. J. R. Simpson) said that this was an important matter, and should be referred back for the investigation of the Importers and Shipping Committee, for report to the next meeting.

Stamp Duties in Victoria.

When during the month a formal motion for the re-imposition of stamp duties was brought before the Legislative Assembly of Victoria, Mr. Prendergast, the Labour member for North Melbourne, said that revenue from this source, estimated at as much

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as £30,000 a year, was being evaded by a "trick." Hundreds of crossed cheques were being issued for which no receipts were given or expected. By arrangement the cheque itself became a receipt without further payment of either duty or postage. The practice, he maintained, should be brought to an end and the commercial world "compelled to be honest." As it was certain firms were doing an injustice to the general body of taxpayers.

For the Government the Attorney-General (Mr. Eggleston) said there was no evasion in the legal sense. Nobody could be prosecuted because no receipt was given within the meaning of the Act. Legislation on the subject had been considered and he himself favoured payment in all such cases, but the proposal had met with a great deal of opposition. Many of these cheques were for small amounts, paid by stock and station agents, commission agents, and produce brokers, to primary producers, who would be hit by the application of the duty.

The matter was allowed to drop for the time being at least, the motion being carried on the voices.

British Trade in Australia.

Upwards of six members of the N.S.W. branch of the Australian Association of British Manufacturers and Their Representatives were present at the twelfth annual meeting held on December 9 at the Hotel Australia, Sydney. Preceding the formal meeting was a luncheon at which Dr. Earle Page, acting Prime Minister, and Mr. G. A. Chambers, representing British interests in Madras, India, were the guests of the Association. After welcoming the guests, the chairman, Mr. Howard F. Hudson, said it afforded them added pleasure to have Dr. Page present, as it gave him an opportunity of establishing personal contact with members of the Association, and learning their view point. It was not for them to combat the fixed policy of the Commonwealth in regard to the development of secondary industries, although it was their desire to assist as far as possible in securing for the United Kingdom an increased share of this market's import requirements. With regard to existing preferences granted by the Commonwealth Government in favour of British products, while they appreciated these favours they did not think they were as real as originally intended. They believed there were several ways in which closer co-operation could be effected between the Commonwealth and Great Britain, through their Association, ways which would materially assist in strengthening the ties of kinship and mutual trade interests. They were not unmindful of the progress that had been made in the development of Inter-Empire trade, both by Australia and the Mother Country, and they felt that the Prime Minister (Mr. S. M. Bruce) at the recent Imperial Conference and during his subsequent tours had enunciated in no uncertain manner where his Government stood. By way of qualifying his contention that there should be a greater margin of preference accorded British products, Mr. Hudson quoted some interesting figures relating to imports and exports as between Australia, Great Britain and foreign countries. He supposed there was some good reason why the Commonwealth Post Office used so many foreign motor postal vans, in spite of the recent progress of British motor vehicles in this market. Concluding an interesting address, Mr. Hudson announced that after protracted negotiations it had been definitely decided to hold a British Trade Fair in Melbourne in February, 1928, and in Sydney at a subsequent date, such having received the official aproval of the Commonwealth Government. And in the latter part of 1927 an all British Motor Show would be held in Sydney.

In his reply, Dr. Earle Page said the position British trade would occupy in the Australian market was dependent solely on the efficiency and insight with which her manufacturers catered for its needs. The responsibility lay entirely upon British manufacturers finding out and supplying what the Australian consumer actually wanted. He claimed that everything possible had been done by Australia to enable the British manufacturer to obtain this market. Parliament had given a generous tariff preference, and public and private concerns gave preference to British machinery and other manufactures. If Britain wanted to hold the market, however, she must give Australia what was wanted. Too often British manufacturers offered what they believed others should take. He warned them that these necessities were greater even than our sentiment for Britain. Emphasising the importance of trade with Australia, Dr. Page said that from 1921 to 1925 British imports into this country increased by £14,500,000, while the Continent of Europe increased its purchases from Britain by only a little more than £12,000,000. He pointed out that Australia's policy of developing secondary industries did not act detrimentally to British trade with Australia. Secondary industries added enormously to the value of raw material, and gave employment, thus providing a market of much greater purchasing power than if the whole population were engaged in primary industries. With the exception of India, said Dr. Page, there was no country in the world which bought British goods to the same extent as Australia, and while Australia gave substantial preferences to such goods, 95 per cent. of Australian exports had to compete on a level footing in Great Britain.

In the Associations' annual report it was shown that there were 238 members enrolled inclusive of a number of British manufacturers. Reference was made to the valuable propaganda in England by Sir Arthur Balfour and the London Council, supplemented by the President of the Federal Association, Mr. R. W. Knox, during his recent visit to England. Local council and trade sectional meetings had been frequent and well attended, resulting in the successful achievement of matters vital to the interests of the Association. Reference was made to the benefit to be derived from the recent formation of a Provincial Federal Council to the retirement of Mr. A. Simpson from the office of British Trade Commissioner in N.S.W. and Queensland; to the death of the late secretary, Mr. E. Inglis Wood, who held that office from the inception of the Association; and to the newly appointed secretary, Mr. E. G. Blanshard, A.I.C.A.

Mr. S. Scott Young spoke strongly of the need of greater support of British manufacturers to their representatives and to the Association. Mr. C. E. Mayo stressed the value of the Provisional Federal Council in effecting greater co-operation between the different State branches, and announced that British manufacturers were effectively awakening to the necessity of affording greater financial assistance to the Association for furthering their interests in the Commonwealth. Mention was made of a particularly substantial donation of some thousands of pounds, for propaganda, lately contributed by an English firm.

The following were duly elected to the Council for the ensuing year: Messrs. W. W. Anderson, W. R. Caithness, Howard F. Hudson, A. Simpson, C. J. Sparrow, and George Thompson.

A hearty vote of thanks to the chairman, coupled with the members of the Council, was proposed by Mr. T. L. Kenway, supported by Mr. T. W. Heath, and carried.

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Australasian Metal Markets

All prices are quoted for approved brands, duty and over charges included. For English prices, see The Month's Cablegrams on page 14.

Sydney, December 29, 1926.

December turnover has been very satisfactory. In heavy hardware a fairly even business was written covering most of the general lines, although in some sections the quantities were not large. Builders' requirements went into distribution in satisfactory parcels at scheduled rates, and there was some business recorded in imported linseed oil. Turpentine and resin have been inactive, and for some unaccountable reason there has been very little demand, which has affected the transaction of interhouse business, parcel quantities being sold at much under replacement value. While turpentine prices for indent have hardened somewhat, American resin quotations are much lower than was paid for parcels just to hand, and this has resulted in the price being reduced and holdings not being so valuable as expectations at the time of purchase led the buyers to believe. Most of the stocks of A.B.T.N. shellac have been taken off the market by consumers, and a much firmer tone prevails at a higher price for the stocks arriving. King's Windsor Diamond plaster is in short supply. Considerable business was transacted in tanks and all the available stocks are said to have been bought up by wholesalers for country trade. Business in jute fabrics was uneven, although in certain quarters trade reports are very satisfactory. There are still parcels of goods which will not turn out profitably for the importer unless local demand creates another atmosphere. It is quite likely trade may be influenced by the appalling fires which spread over the State during early December. At the time of writing magnificent rains have fallen throughout the State, and the value and benefit to all sections of the community cannot be overestimated. In galvanised corrugated sheets demand has been steady in both 24 gauge and 26 gauge, and business has been placed for orders which were sent from the other States. Although shipments arrived carrying indents of Welsh tinplates holdings were not augmented to any extent, and a shortage of stock is anticipated during the first three months of 1927.

Auckland, December 20, 1926.

Since our last report business in city and country shows a slight improvement, no doubt on account of the better weather conditions and the improvement in prices of butter and the firm prices of wool. Consequently more confidence is exhibited by the country storekeepers when ordering. The hardware merchant welcomes the termination of the coal strike in England, inasmuch as orders for heavy lines which manufacturers have been unavoidably delayed in executing will now be coming forward. Prices remain very much the same as the previous month. Sales of bar iron in the city have been good. The demand for steel plates, particularly for Bowser tank installations has resulted in some sizes becoming scarce. Shipments coming forward, however, will soon relieve the position. Fair sales of corrugated iron are reported, but it is not up to the usual demand at this period of the year. There has been a good demand for fencing wires, mostly for English brands. Wire netting has been selling freely, particularly fowl netting sizes. Pig lead is easier at £38/10/-. Ingot tin still remains firm at 3/5 per lb. Sales of white lead have been good, and linseed oil has also been in good demand. Turpentine is now quoted at 8/- per gallon.

Dunedin, December 15, 1926.

Already the Christmas season is beginning to affect business. The shops are attractive with all those wares reckoned indispensable at the period, and are becoming more busy as the new year approaches. Wholesalers are complaining, however, of a slacker time than twelve months ago, which is not to be wondered at when the effect on business of the International Exhibition then open is remembered. But the future holds more hopeful results, as a greater number of public works is in store and will ultimately be put into operation. Some of these are of a very solid and substantial kind, including

NEW ZEALAND PRICES.

	Duty.	Auckland, Dec. 20	C'church Dec. 20	Dunedin, Dec. 15	Wellington Dec. 23
IRON—					
Bar—		£	£	£	£
English ..	Free	22	24/	24/	24
Shoeing ...	,,	24	25/	23/	25
Steel ...	,,	22	20	23/	18/6 to 25/
Pig	,,	8	10/6	10/6	9/- to 10/-
Plate ...	,,	23 10/	25/	24/	24/6
Hoop ...	,,	24/, 35/	33/	32/	33
Sheet, Blk.	,,				
to 20-g. ...		24 10/, 25 10/	27/6	25/6	26 6
22 & 24 g.		26 10/	29/6	30/	26/6
Galv. Cor.—	2/-				
First ...		32	34/Builders	34 10/	33 10/
Second ...	,,	31	31/6 ,,	33 10	32 10/
Local ...	—	32	...	...	...
Do., Plain	Free		...		
24 & 26 g.		34/, 35/	38/, 35/	40, 48, 44	32 10/
Pipe—Galv.	Free	40%	45%, 47½% off	42½	40% off
,, Black	,,	45%	50% off	50% off	50% off
Wire—	,,				
Galvd. ...	,,	16, 17 10/	17/6	16/6	17/6 to 18/6
Black ...		16	16/6	15/6	
Barbed ...	,,	21, 23 10/	22/6 to 23/6	21/	25/6 to 26/6
Nails ...	2/4/- c	20/6	22/6	22 10/, 23 10/	23
,, N Z.		...	...		23
Lead—Pig	Free	38	50/	55/	40/
,, Sheet	,,	46 5/	52/9	50/	60/
,, Shot	10/-	75/	80/	80/	75/
Tin—Ingot	Free	3/5	3/4	3/2	3/6
,, Plates	,,	35/6, 48/6	45/ I.X.	40/	37/
Zinc—Sheet	,,	9d. lb.	9d. lb.	8½d.	8½d
Quicksilver	—	...	6/6 lb	...	...
Cement—					
Imported	1/-cwt.	...	22/6	...	...
Local bag	—	5/8	6/10	6/	5/11
Slates ,,	Free				
P. of Paris ...	,,	27/6	32/6	28/6	27/6
White Lead	10%a.v.				
Best ...	—	63/	67/6	67/ to 65/	69/ to 70/
Second ...	—	61/		...	68
Blst. Powder	Free	1/8	1/9	1/7	1/8
Rope— ...	20%				
Manila, Star	—	111/	111/	116/	111/
,, O. ...	—	107/	107/	112/	107/
Flax, N.Z. ...	—	81/, 88/	88/	88/	88/
Co.nsacks ...	Free				
44-in. ...	—	...	....	13/3½	14/6
46-in. ...	—	...	14/9	13/1½	14/9
48-in. ...	—	16/6	15/	13/8½	15/
Woolpacks ...					
Full ...	Free	5/6	5/3	4/11½	5/3
Oils—					
Lins'd, raw	6d.	5/5	N.Z.4/8Eng4/11	5/3	5/9
Castor ...	Free	5/3	6/	5/6	6/
Colza ...	,,	7/9	8/	8/-	7/3
Kerosene	,,	14/3	14/3	14/3	14/3
Turpentine	,,	8/-	8/	8/-	7/6 to 8

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wholesale establishments in and near the centre of the city. A practical evidence of this better feeling is the demand for both town and suburban allotments for private residences. Record prices were reached in a recent subdivisional sale. Country prospects are improving also, although the inclemency of the weather has delayed progress so far. Recent wool sales proved that values are but slightly affected for this season. Touching on values of hardware, it may be stated that conditions are still fairly steady. Galvanised corrugated iron has been advanced to 40/-, 42/-, and 44/- for plain. Linseed oil, however, declined to the lower figure of 5/8, and castor to 5/6. Corn sacks have receded in value to 13/3½ for 44 in., 13/1½ for 46 in., and 13/8½ for 48 in. Woolpacks are quoted at 4/1½.

Christchurch, December 16, 1926.

Christchurch shops are at their very busiest at time of writing these notes. Christmas shoppers have learnt from past experience not to wait till Christmas Eve, and assistants are consequently able to handle the business with less of a rush. Present indications are that the season will be comparatively good, even if some sections of the community have a lower spending power owing to recent unemployment. Loyal citizens notice with regret that German toys and tools are again on the market, displacing to some extent the British made article on account of price, but one realises that only by trading can the German nation hope to pay war indemnities. It is noticeable that purchasers generally are buying presents of more lasting properties than formerly. The country is looking well, and hopes are expressed of a more than usually bountiful harvest, providing no sudden gales interfere with the garnering of the crops. The recent wool sales have been fairly satisfactory; while prices are not as high as in the boom period, they still pay the sheep farmer a very good profit on his year's work. If some of these farmers would reduce their mortgages with the banks or loan companies in their prosperous years instead of buying extravagant fur coats and flash motor cars as at present, their financial position would later on be very sound indeed. The Waimakariri River Trust is making another effort to get the necessary protective works authorised to prevent floodwaters spreading over the surrounding country, as recently happened. Work is now proceeding preparatory to the electrification of the Lyttelton railway tunnel. The Christchurch Tramway Board recently had to purchase all the opposition motor buses, and now have a monopoly of the business. Prices remain practically unchanged. Raw linseed oil is being sold at a very low cost, as is also white lead. The competition in this line seems most uncalled for at present. Corrugated iron is being sold freely to builders at £34 per ton basis for Lysaght; ordinary and second grades at £31/10/- to £32.

Wellington, December 23, 1926.

Hardware merchants have enjoyed a good steady turnover during the past two months, but have now slackened off for the holidays. Business generally has been very good here, and the Christmas trade is said to be better than usual. The effects of the coal strike are being felt in depleted stocks of English iron goods, but no really acute shortage has been experienced. Prices have a hardening tendency, due to the strike, and iron goods have mostly advanced. Bar, plate, and galvanised iron are all £1 higher, and fencing wire is up 10/-. Galvanised iron and English wire are short, but bars and plates are in fairly good supply. Pig lead is £2 lower and ingot tin 3d. higher. Iron pipes and wire nails show no change so far. Pig iron has been in light supply, but is better now. White lead and red lead stocks are fairly well maintained and quotations keep steady. Satisfactory stocks of linseed oil and turpentine are held and kerosene is plentiful, with quotations unaltered. Petrol prices were recently reduced 1d. per gallon. Cement supplies continue adequate though demand has been fairly heavy. The outlook for the hardware trade appears bright and business should start well after the holidays.

Brisbane, December 21, 1926.

Business in many lines has been very good, particularly in retail shops, although it is doubtful if the volume of trade will come up to that of last year. Prices generally are stationary, but whereas December prices are usually maintained, January sees the pruning knife slashing them down. At date of writing magnificent rains have fallen over the major portion of the State. Even coming at this late hour, it will certainly be conducive to trade, as farmers and graziers will have every assurance of practical relief. Heavy hardware has been slow with stocks light and prices unchanged. Bulk hardware has been receiving a deal of attention, and stocks are fair. Builders' ironmongery and materials have been selling well. No doubt the desire to clean up as many jobs as possible has been responsible for this impetus. In paints and oils there has been no change worth mentioning, although household lines in prepared colours have been selling freely. Stocks are plentiful. Australian white lead is 71/-, and imported 78/-, while red lead is 70/-, raw linseed oil is 5/6 and 5/4, turpentine 7/3, castor oil (Australian) 7/3, and neatsfoot oil compound 6/- gallon. Sanitary ironmongery and accessories have shown some improvement in sympathy with the building trade. Prices are firm. Black fencing wire and wire netting (Dingo) have been moving freely, and some good business is reported from the South Western corner of the State. Barbed wire has been weaker and prices are inclined to ease. Stocks of Australian wire are fairly good. Some fair sales of galvanised corrugated iron have been recorded for recognised brands. Carbide (colonial) has been selling freely at unaltered prices. Stocks are right. Cement has been selling freely, and can now be bought in large parcels at less than 6/9 per bag. Stocks are ample. Woolpacks are very quiet this month, as it is just between seasons.

Adelaide, December 24, 1926.

At this centre trade has been quite satisfactory during the month. There has been a continued demand for most heavy lines while shelf goods have been heavily drawn upon. Mild steel rounds for reinforcing purposes are more steady as stocks are now more plentiful. Sales of galvanised and black tubes have been well maintained, some good sales having been effected during the early part of the month, mostly on the basis of 45 per cent. off list for galvanised, although parcels to arrive have been booked at slightly easier rates. Fencing materials have been rather on the quiet side, but a parcel of 36 x 1½ x 18 wire netting was sold at £30 on trucks. Sales of ingot tin have been well up to the average. Galvanised tanks, both 200 and 400 gallon, continue to be very short. There has been a big demand for all lines of cartridges. Sheet lead and lead piping show a slightly easier tendency, and a parcel of sheet brass realised 1/1 per lb. Local cement clearances have been well up to the average. White lead, oils and paints have been well in demand, and good business has been reported in cast iron hollowware. Sales of Pinetree turpentine have been made at 6/5 ex store. English whiting is selling at £9/10/-,

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Cornsacks have been sold at 11/6 f.o.r., and woolpacks at list rates.

Melbourne, January 4, 1927.

A moderate demand was experienced throughout the month for heavy metals, but sales of shelf goods, especially cutlery and domestic hardware, were very heavy. During the Christmas season hardware stores were doing exceptional business, owing, in a great degree, to the striking advertisements displayed by leading houses, which persuaded the shoppers, and quite reasonably, that gifts of kitchen or household articles are often more appreciated than articles of mere luxury or adornment. Aluminium utensils and art copper and brassware also found a good market. Fencing materials continue to sell here, prices being well maintained. Twenty-five ton lots of No. 8 galvanised wire sold at £15/10/-; 10 tons No. 9 at £16; and No. 10 at £16/10/-, all these prices being nett. Many parcels of wire netting changed hands, the sales noticed including the following: 10 miles 48 x 2 x 17 at £39; 5 miles 42 x 1½ x 17 at £42; 3 miles 30 x 3 x 16, at £23/10/-; 5 miles 36 x 1⅝ x 18, at £27/5/-; 5 miles 36 x 1½ x 18, at £29. Small lots of 72 x 2 x 18 sold at £48. In building materials cement was quieter than usual, the demand on account of local builders having temporarily slackened until after the holidays. Galvanised iron was in good request. Small lots were handled in several cases, usually outside brands of English iron, which brought £28/10/- nett basis. A parcel of rolled steel joists of all sizes was purchased for Interstate, the price not being disclosed. Iron pipes were easier; 10,000ft. lots of ¾ and 1 in. black pipes were selling at 60 per cent. off; and two lots, each of a similar quantity, of ¾ and 1 in. galvd. at 56¼ per cent. off. Ten tons of black steel sheets, assorted 10-12 gauge, were shipped to another State, and although the price was not given it was said to be satisfactory. Three tons of Mt. Bischoff tin brought £303 per ton. A line of 50 tanks, 400 gall. was also purchased by an Interstate buyer at £5/10/- each. Tanks are now in good demand, the supply not being large, and present prices should be well maintained. Tin plates have been scarce and somewhat difficult to obtain during the past month or two. Unless the labour position improves in England no relief is anticipated. No important sales of paints and oils were recorded, but a good inquiry is expected with the new year.

The Month's Cablegrams

Copper, Tin, and Silver. — The following table shows the quotations at the undermentioned dates, compared with those of the corresponding periods last year:—

Date.	Copper. Electrolytic. Per Ton.		Tin. Standard. Per Ton.		Silver. Standard. Per Ounce	
	1925	1926.	1925.	1926.	1925.	1926
	£	£	£ s. d.	£ s. d.	d.	d.
Nov. 25..	67–67⅛	65–65⅛	287 2 6	313 2 6	32¼	25¼
Dec. 3..	66⅛–66⅜	64–64⅛	286 7 6	314 7 6	32	24⅝
,, 10..	65⅞–65¾	64⅛–64⅜	287 10 0	307 2 6	32⅛	24⅛
,, 17..	65–65⅛	64⅛–64⅜	286 2 6	307 12 6	31⅞	24⅜
,, 24..	65⅛–66	64⅛–64⅛	284 7 6	301 2 6	31⅝	24⅜
,, 30..	65⅜–66	63⅜–64	287 5 0	301 12 6	31⅝	25⅛
Jan. 4..	65⅝–66⅛	63–63⅜	289 2 6	301 5 0	31⅝	24⅝

The stocks of tin in the United Kingdom at the end of November are 14,257 tons, the deliveries for the month 2,107 tons, the quantity on spot 410 tons, and the quantity afloat 1,780 tons.

Lead.—In the London market soft foreign lead on spot has been quoted as follows: December 3 £28 15/-; December 10, £28/17/6; December 17, £29/2/6; December 24, £29; December 30, £28/18/9; January, £28/8/9.

Spelter.—The spot quotations for spelter, as cabled from London, have run as follows: December 3, £33/1/3; December 10, £33/1/3; December 17, £32 12/6; December 24, £32/17/6; December 30, £32/15/-; January, £32/7/6.

Tallow.—Following are the statistics for November and particulars of the latest auction sales:—

Nov.	Casks.	Date	Casks Offered	Casks Sold.	Mutton, Med., per cwt.	Beef, Med. per. cwt
Imports	1232	Dec. 1	Nil.			
D liver's	1483	,, 8	1,813	614	36/	35/
Stock	8982	,, 15	977	197	35/	35/
		,, 22				
		,, 29				

A Prescription for Success.

(Llew S. Soule in "Hardware Age.")

The April issue of "Personal Efficiency" tells the story of a woman who has earned a nation-wide reputation through the manufacture and sale of candy. Starting with almost nothing—or, as she expresses it, "with a nickel's worth of sugar and the white of an egg"—she has built a business that runs into millions.

She guides that business by the application of the following principles of policy:—

Start with Confidence.—When you start with ambition and determination and confidence in yourself and in your merchandise, your success is assured.

Make the Best of It.—Be philosophic and make the most of what you have. And when you make something, make that something the best that you can make it; make it better than other people; make it the best in the world.

Hustle While You Wait.—One cannot be too impatient of success. Work and wait, and work and wait. Everything comes to him who hustles while he waits.

Business Success Does Not Demand Sacrifice of Principles.—Witness the fact that the Snyder stores are never open on Sundays.

Follow Your Bent.—You can succeed best if you can do the thing you like, and if you do you'll certainly have a lot more fun at it.

Make Folks Happy.—The world will not deny profit to those who serve well, and most of all to those who can make folks happy. Make them leave you with a smile.

Think of Customers not Competitors.—It's worth while to think of folks, but while thinking of folks concentrate on those you serve rather than those you rival.

Candy is just a single line. It is infinitely harder to build success on a single line than on a variety of lines which share the overhead expense. Yet this woman has succeeded far beyond her expectations.

That little list of principles of policy has contributed much to her success.

Perhaps it will do the same for you.

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Australian Market Prices

N.B.—The prices given in these columns are mostly those at which wholesale merchants are prepared to supply ordinary parcels to storekeepers, or other retail dealers. In a few cases we give the quotations of manufacturers or their agents. Preference as well as general duties are shown in the "Duty" column. The first rate is that on goods from the United Kingdom, and the second is the general rate on goods from foreign countries. "F" represents free, and "F 10 %" free from the United Kingdom and 10 % from other countries.

	Duty	Sydney Dec. 29	Melbourne Jan. 4	Adelaide Dec. 24	Brisbane Dec. 21
Pig Iron	20/. 40/	£	£	£	£
British		...	7 5/	...	...
Swedish		...	...	...	...
Lithgow		7 10/	7 5/	...	...
Newcastle		7 10/	7 5/	8 15/	...
Bar and Rod	44/. 120/	22 basis	English 21	24 10/	22/10 basis
Australian		...	18/6	...	...
Mild Steel	44/. 120/				
Bar		19 10/basis	17 basis	19	18
Angles		19 10/	18	19 10	19
Tees		21	18	20 10	20
Hoops	F., 10%				
Black		20 basis	19 basis	19/6	21/ basis
Galv.		32/6 basis	35	33/6	31 10/
Galv. Corr. 24g.	20/. 60/	30/]	29 10/	30 5/	
Orb 26 g		30	31	31 10/	30 5/
,,		31 10/	31		31 10/
Adams Mars		...	...	29	...
Phoenix Cr.		29 15/	30	29 10/	32
Galv. Plain 24g.	20/. 60/	30/]			
Queen's Hd.		32/	31	32 10/	33
Phoenix Cr.		31 5/	33	...	...
Fleur-de-lis		31 10/	...	32	33
Other		...	31 10/	...	43/
Sheet	F., 125/				
Black		27 basis	25 basis	24	26
Baldwins		B26, G34 5/	26 10/	...	19
Plate	F., 120/	basis			
Steel		18 basis	15 basis	15	15 10/
Girder		19/6	21	19	21
Fencing Wire	F., 120/				
American 8		18 5/	18 5/	16	..
,, 10		19 5/	19 5/	17	...
Austra'n 8 Bl.		15 12/6	15	...	16/
,, 10 ,,		16 12/6	15 10/	...	17/
Galv. 8		17 17/6	14 10/	18 10/	18 10/
,, 10		18 17/6	15 10/	19 10/	19 10/
,, 12		20 2/6	18 10/	20 15/	20
Barbed Wire,	68/. 180/				
Amern. 12-g.		21	...	...	25 10/
,, 14-g.		25 10/	...	...	26 10/
Austn. 12-g.		24 10/	24	26 15/	25 10/
,, 13-g.			25	27 15/	26
,, 14-g.		25 10/	26	28 5/	26 10/
Wire Netting	F., 200/				
36 x 1½ x 17	per. ton		36 15/	38 10/	
36 x 1½ x 18			29	37/	New
42 x 1½ x 17		15%	49 10/	...	List
42 x 1½ x 17		to	42	...	
42 x 1½ x 18		20%	34	43/6	10 to 15%
36 x 1½ x 17		off	35	...	
36 x 1½ x 18		list	28	...	Off List
36 x 2 x 18			22 10/	31/6	
36 x 2 x 19			20	25/6	
Nails—					
Horshoe	12/. 15/	2½% on list	to 1/lb.	1/ less 10%	List Price
,, Austn.		...	List	...	plus 5%
Wire	5/6, 8/				
,, Austn.	or25%,35%	28/6 basis	20/ to 22/	25/ to 37/6	30/- basis
Roofing—	5/6, 8/				
Evenden		74 6 cwt.	65/cwt., 9/6	10/	11/
Lead-head		...	...	...	44/
Block Tin	Free	298 10/	303	3/4	2/8
Tin Plates,					
28 x 20—	F., 10%				
I.C. Coke	28 x 20	112's 67/6	47/6	56's 39/ 37/	27/
I.X. Coke	56s	47/6	75	...	42/
Pig Lead	Free				
Austn.		34	42	42/	38/10
Sheet Lead	10%, 20%	49/	50	51	62/6
Dampcourse					
2—2½ lb.			62 to 62 10/		
3 lb.			60		
Lead Pipe—	10%, 20%				
¼ to ⅜in. coils		54/	58 10/	57 10/	69/
Soil Pipe		56/	66 10/	60	72/
Compo. ½" & up		59/	66 10/	59 15/	69/
Copper—					
Ingots		...	70	97/6	10d.
Sheet	25%, 40%	1/6	1/7	1/8	1/8
Brass					
Sheet	25%, 40%	1/3	1/2 to 1/6	1/6	1/6

	Duty	Sydney Dec. 29	Melbourne Jan. 4	Adelaide Dec. 24	Brisbane Dec. 21
Zinc—		£	£	£	£
Sheet 9 to 18g	25,% 40%				
(7 x 3 & 8 x 3)		67 10/	62 10/ to 65	75/	65/ cwt.
Perforated	35%, 45%	5/6	7	...	5/6
Spelter	10%, 20%	32	...	54/	...
,, Elec.		35 to 41 10/	41 to 42	...	40/
,, Brazing	25%, 40%	1/9	1/5	...	1/9
Bolts & Nuts—		⅜" ½"	⅜ ½		
Cuphead 3"		75/, 59/	63/ 47/ 41/		
,, 4"	35%, 50%	76/, 57/	61/ 46/ 39/	...	26/3 to 73/
,, 5"		70/, 54/	56/ 43/ 37/		
,, 6"		65/, 49/	52/ 39/ 35/		
,, 6½" to 9"		61/, 47/	49/ 38/ 34/		
,, 9½ to 12"		59/, 45/	47/ 36/ 32/		
Tanks, 400-gal.	Free	6 10/	5 15/		5
,, 200-gal.		3	3		3
Tubing—	F., 10%				
Black, up to 3"		50 off list	55% off	58⅓off	List 40% off
" 3½ & up	27½		65% off	35 off	.. 5% on
Galv. up to 3"		46⅔ ,,	45% off	46⅔off	.. 35% off
" 3½ & up	27½	...	tst. List	20 off	.. 15/ on
Steam, up to 3"		35 ,,	37½% off	37½off	.. 5% on
" 3½ & up	27½	...	5% off	20 off	.. 25% off
Wr'ght boil.		...	10% on	...	.. 15% on
Explosives—	F., 5%				5/
Hall's C.C.	10%	1/-	10½d.	...	1/1
Curtis's		10½d	10½d.	1/0½	1/
Chilworth's		10½d.	10½d.	...	1/1
Sporting	15%, 25%	3/6, 4/6	2/9 to 4/6	3/6 to 4/11	3/6 to 5/3
Diam. S'less		10/	8/ to 8/6	8/3 to 8/6	5/
Amberite		8/6	7/ to 7/6	6/9 to 7/6	75/
Blast'g Gel.	F. 5%	74/6	74/6	74/6	77/
Gel. Dyna.		66/	66/	66/	68/
Gelignite		56/ to 59/6	54/6 to 58/6	54/6 to 58/6	58/ to 62/
Dynamite		51/ to 57	51/ to 57/	46/6 to 51/6	...
Detonators	15%, 25%	55/	55 to 60/	60/ to 85/	58/ to 102/
Shot—Chilled	5/, 6/	70/	61	75/	90/
Australian		68/6	56	...	...
Cyanide Pot.	Free	1/4	1/6	...	1/6
Quicksilver	Free	5/	5/6	7/6	5/9
Sash Weights	35%, 45%	16/	22/6	16/6	18/6
Sheep Shears	F., 10%	62/6	62/6 to 65/	60/	60
Cement—Impt'd	20%, 30%	25/ cask	21/6	22/6	21/ cask
Aust. (bags)		...	18/	7/4	6/6 bag
Plaster, Imp.	1/6, 2/c	37/6 K.W.	35/	47/6	50/ cask
,, Aust.		Pixie 35/-	8/	9/3	18/ bag
Slates (20 x 10)	30%, 40%				
White Lead—	8/, 10/, or				
Imported	25%, 30%	74/	73/	84/6	78/
Australian		64/6	64/	75/6	71/
Zinc White	20%, 30%	...	70 to 100	...	72/, to 90/
Oils—					Coloni al 56/
Linseed (raw)	9d., 1/		Drs.,		
Imported		R5/6	5/	Drs., 5/9	5/4
Australian		C4/11 D 5/1	C., 4/8	Drs., 5/6	4/9
Colza	6d., 8d.				
Burning		...	6/-	...	
Castor—	9d., 1/				
½-cases		C 6/	6/3	7/	7/3
China	2s., 2/6	...	8/	...	...
Cotton seed	6d., 8d.	..	8/6 to 10/	...	10/
Kero.—C.O.R.	Free	..	13/	...	...
Laurel		13/	13/	13/	13/
Light of Age		13/	13/	13/	13/
Pennant		13,	13/	13/	13/
Turpentine	F.,	6/6	6/3	7/9	7,3
Substitutes	½d., 1d.	3/	18/ per case	...	2/9
Shellac		2/6	2/9	2/6	2/9
Whiting—	6d., 9d.				
English		9/	9/6	11/	£12 ton lots
Colonial		4/9	4/6	6/6	...
Resin, G grade	Free	45/	38/	45/	37/6
Carbide—	80/, 150/				
"I X L"		30/	25/6	29 5/	29, 7/6
Scandinavian		33/-	27/6	33 10/	33
Canadian			...	...	...
Japanese		...	...	...	...
Bluestone—	100/, 200/	...			
Macclesfield		38/	37/	...	38/
Australian		36(1 cwt c/s)	...	37/6	...
Japanese		...	...		
Stock. Tar, 42 g.	25%, 35%		1/5		
Woolpacks—	Free	...		...	
42 x 11½		...	6/	5/9	...
54 x 11½		4/6	5/	4/9	5/-
Cornsacks—	Free				
2½ lbs. (Oats)		...		...	...
2¼ lbs		11/	11/6	11/6	13/6
Branbags	Free	11/	8/6	8/6	9/ to 10/

Small buyers requiring credit for broken parcels must expect to pay more than prices here quoted.

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Business Register

If you correct them monthly by these pages you will have lists more up-to-date than any Directory. Some leading firms do this.

New South Wales

Acme Metal Industries, hardware suppliers, 20 Hopetoun-street, Hurlstone Park, have been taken over by William J. Tregoning.

Firms Registered.

Jolly Miller, hardware dealer, 17 Pitt-street, Mortdale; proprietor: Uriah Miller.

Brentnall & Co., general hardware merchants and ironmongers, 40 The Corso, Manly; proprietor: Alfred Seller.

Neale Bros., grocers and hardware dealers, Lane Cove-road, Turramurra; proprietors: Charles G. Neale and Albert F. Neale.

Caldwell & Smith, grocers, hardware and provision merchants, Maroubra Bay-road, Maroubra; proprietors: Francis W. Caldwell and Thomas B. Smith.

Durable Fireproof Safe & Steel Co., manufacturers of fireproof safes, strong room doors, and general ironworkers, 108 Enmore-road, Enmore; proprietor: Frederick Goodenough.

Cohoe & Walster (A. J. Walster & Son, sole proprietors), agricultural implement merchants and engineers, Pioneer Foundry, Edgar-street, Junee; proprietors: Arthur Joseph Walster and Arthur James Walster.

Company News.

Sydney Bedstead Works Ltd. announce that the capital of the company has been increased from £10,000 to £50,000.

Electrolux Ltd., announce that the capital of the company has been increased from £5,000 to £300,000 by the creation of 295,000 new £1 shares.

Quickways (Australia) Ltd., have been registered with a capital of £1,000 in £1 shares. Objects: To carry on business as wholesale and retail dealers in household utensils, etc. Subscribers: Ernest Taylor, Lucia Taylor, Horace B. Allard, Francis H. Way, James M. Hardie, George G. Allard and Thomas I. Gemmell. Reg. office: Sydney.

Lyttle & Black, Ltd., have been registered with a capital of £5,000 in £1 shares. Objects: To acquire the business of engineers and iron founders now carried on at Cook-street, Glebe, under the style of Lyttle & Black. Subscribers: Byron N. Lyttle, Arthur L. Diment, Martin J. Wade, Robert Black, Robert J. Lyttle, George G. Tremlett, and William B. Giles. Reg. office: Sydney.

Phillips Lamps (Austalasia) Ltd., have been registered with a capital of £50,000 in £1 shares. Objects: To carry on the business of electricians, manufacturers of and dealers in all kinds of electric lamps, etc. Subscribers: Diederik A. P. G. Den Hertog, Arthur J. Hanson, George S. Warburton, Edward F. Moates, Eustace C. Holroyde, Joseph H. D. Brearley and Vero Read. Reg. office: Sydney.

Standard Brush Co., Ltd. have been registered with a capital of £7,000 in £1 shares. Objects: To acquire by agreement the business of manufacturers of brushes, brushware, woodturnery and hardware, etc., now carried on at 16 Botany-street, Waterloo, under the style of Standard Brush Co. Subscribers: Henry C. Wilson, Russell C. Roxburgh, Andrew Williamson, Percy H. Williamson, George H. Goodwin, Dorothy J. Woodwin and A. McKenzie. Reg. office: Sydney.

New Zealand

Company News.

Freeman & Perrett Ltd. have been registered with a capital of £2,000 in £1 shares. Objects: To manufacture, import, export, and deal in all kinds of machinery, apparatus, tools, etc., and general incidental. Subscribers: F. Freeman and L. A. Perrett. Office: 173 Victoria-avenue, Wanganui.

Harper Danks Ltd., have been registered with a capital of £4,000 in £1 shares. Objects: To carry on the business, wholesale or retail, of plumbers, plumbers' merchants, manufacturing plumbers and tinsmiths and general indent commission agents. Subscribers: E. S. Harper, S. Danks, and W. S. MacGibbon. Office: 155 Hereford-street, Christchurch.

Electrolux Ltd. have been registered with a capital of £150,000 in 50,000 £1 preference shares and 100,000 ordinary £1 shares. Objects: To establish and carry on the business of importing, manufacturing and dealing in "Electrolux" cleaners, etc., and general incidental. Subscribers: M. Aktiengesellschaft, J. L. Griffin, C. G. White, and J. R. E. Bennett. Office: 111 Customhouse-quay, Wellington.

Queensland

Frank Lake & Co., general storekeepers, Conungra, announce that William H. F. Lake has retired from the firm.

The Sunshine Foundry, ironfounders, Merivale-street, South Brisbane, announce that Douglas P. Stair and Robert Stirratt have retired from the firm.

Firms Registered.

Jesson & Cosgrove, general storekeepers, Long Pocket; proprietors: George Jesson and Harold G. Cosgrove.

Wynnum Hardware Supplies, hardware merchants and ironmongers, Bay-terrace, Wynnum South; proprietor: George T. Sands.

Mendels Sheet Metal Works Co., metal workers. Annerley-road, South Brisbane; proprietors: Jacob Mendel, Robert Thompson and May Dight.

A. E. Appleton & Sons, lamp manufacturers, Sherwood; proprietors: Alfred E. Appleton, Edward V. Appleton, Norman V. Appleton and Alfred D. Appleton.

Company News.

The Harp Separator & Machinery Co. Ltd., have been registered with a capital of £25,000 in £1 shares. Objects: To carry on the business of separator and machinery salesmen, importers and exporters, and to acquire and take over as a going concern all assets and also all the liabilities of the business of separator and machinery salesmen now carried on under the style of Harp Separator Co. at Brisbane, etc. Subscribers: Jens O. Norup, John Montey, Bridget Murphy, Edward J. Murphy, William H. Lovell, Josephine Montey, and George R. H. Gill. Reg. office: Albert House, Ann-street, Brisbane.

South Australia

The Utility Sheet Metal Works have removed from North-terrace, Hackney, to Ackland-street, Adelaide. Mr. R. E. Rowland is the proprietor.

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G. B. Otto & Co., timber and hardware merchants, 105b Magill-road, St. Peters, and Wells-street, St. Peters, have been registered under the Firms Act. Proprietor: George Bernhard Otto.

Tasmania

Robertson Bros., storekeepers, Geeveston, have been registered under the Firms Act; proprietors: Basil Robertson and Alan Robertson.

R. Kennedy & Sons Pty. Ltd. have been registered with a capital of £30,000 in £1 shares. Objects, to acquire and continue the engineering business of R. Kennedy & Sons. Reg. office: Hobart.

Victoria

Firms Registered.

Charles Tait, iron and steel merchant, 674-676 Nicholson-street, North Fitzroy; proprietress: Rebecca Jane Tait.

David Duncan, ironfounder, Whiteman-street, South Melbourne; proprietors: David Duncan, John Joseph Duncan and Neil Duncan.

James Cameron & Co., engineers and manufacturers' representatives, Henty House, Little Collins-street, Melbourne; proprietor: James Hubert Cameron.

Company News.

Sheffield Cutlery Co. Pty. Ltd. have been registered with a capital of £10,000 in £1 shares. Subscribers: John Adrian Burke and Margaret Winifred Sitch. William James Naughton and James Edmund Burke are also directors. Reg. office: 408 Collins-street, Melbourne.

Hubert Johnson Pty. Ltd. have been registered with a capital of £5,000 in £1 shares. Objects: To acquire the business of merchant, commission agent, etc., carried on by Hubert Johnson. Subscribers: Hubert Johnson and Fred Johnson. Reg. office: Commerce House, Flinders-street, Melbourne.

Scott, Hamilton & Co. Pty. Ltd. have been registered with a capital of £40,000 in £10 shares. Objects: To acquire as a going concern the business of ironmongers, importers and manufacturers, carried on under style of Scott, Hamilton & Co. Subscribers: Robert Murray Scott and Mary Olive Scott. Reg. office: 126 and 128 Ryrie-street, Geelong.

Phipps, Turnbull & Co. Pty. Ltd. manufacturers of and dealers in saddlers' ironmongery, etc., have been registered with a capital of £2,000 in £1 shares. Objects: To acquire as a going concern the business of Phipps, Turnbull & Co. Subscribers: George William Butter and George Sutherland Smith. Reg. office: 528 Collins-street, Melbourne.

Thos. Darnley & Sons Pty. Ltd. brassfounders, finishers, manufacturers, etc., have been registered with a capital of £7,500 in £1 shares. Objects: To adopt an agreement for the acquisition as a going concern of the business of Thos. Darnley & Sons. Subscribers: George Albert Rawson, John Stuart Darnley and Thomas Edward Darnley. Reg. office: 31 Queen-street, Melbourne.

S. N. Monks & Co. Pty. Ltd., manufacturers' agents, importers, dealers in motor accessories, etc., have been registered with a capital of £40,000 in £1 shares. Objects: To acquire as a going concern the business of S. N. Monks & Co. Subscribers: Stanley Norman Monks and Edwin James Farrow. Arthur Clarence Farrow is also a director. Reg. office: 544 Elizabeth-street, Melbourne.

Hardie Trading Pty. Ltd. have been registered with a capital of £150,000 in £1 shares. Objects: To acquire as a going concern the business of general merchants and manufacturers carried on by James Hardie & Co. Pty. Ltd. Subscribers: George Knight Gregson, George Alexander Zichy Woinarski, and Norman Douglas Bailey. Andrew Reid is also a director. Reg. office: 581 Little Collins-street, Melbourne.

James Hardie & Co. Ltd. have been registered with a capital of £500,000 in £1 shares. Objects: To acquire as a going concern the business carried on by the Asbestos Slate & Sheet Mfg. Co. Ltd. Directors: Andrew Reid, George Rogers Sutton, Stewart D'Arrietta and Cyprian Pender Truman. Head office: Cr. York and Wynyard-streets, Sydney. Agent in Victoria: George Knight Gregson, 581 Little Collins-street, Melbourne.

Bush's Stores Ltd. have been registered with a capital of £250,000 in £1 shares. Objects: To acquire as a going concern the business carried on by J. F. Shaw & Co. Pty. Ltd., at Echuca, and Albert Bush's Stores at Moulamein and Waool. Subscribers: Donald Ferguson Blyth, Frederick William Bush, Clifford Albert Bush, Robert John Eagle, Frederick William Grabau, jun., William Findlay McKindlay and William Thomas Keely Stokes. Reg. office: High-street, Echuca.

Western Australia

C. Lintott & Co. (C. Lintott and Daniel Connell) have purchased the business of Denis Connell, storekeeper, etc., Maroondah.

Firms Registered.

Crofts & Forrester, general storekeepers, Margaret River; proprietors: Harold Robert Crofts and Robert George Forrester.

General Import Co., merchants and traders, Federal-street, Narrogin; proprietors: Charles Ball and John Thomas Webb.

R. and H. F. Henderson, general storekeepers and agents, Yornaning; proprietors: Ralph Henderson and Henry Fulton Henderson.

Tucker & Aurisch, motor sheet metal workers, radiator experts and oxywelders, 965 Hay-street, Perth; proprietors: Frank Arthur Aurisch and William Joseph Winch.

Agents and Agencies

Mr. B. G. Paddle has removed his office and showroom from Aeolian Buildings, 418 George-street, to No. 12, sixth floor, Broughton House, 181 Clarence-street, Sydney.

Mr. P. L. Boswell, of Boswell & Co., Sydney and Melbourne, returned by the R.M.S. "Niagara" on December 11 from a visit to Canada, the United States and Great Britain. While abroad, Mr. Boswell secured several new agencies for his firm, among which may be mentioned:

Camm, Bagshaw & Co., Sheffield (high speed tool steel, spring steel, picks, hammers, steel balls for cement manufacture, table and pocket cutlery).

McDonald Wire Goods Co., Ltd., Montreal, Canada (household kitchen and bathroom wire goods, both galvanised and enamelled).

Wodack Electric Tool Corp., Chicago, Ill., U.S.A. (electric saws and drills).

Mr. Boswell has also secured representation for a vacuum cleaner, electrical dish washers, and washing machines and ironers.

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Electrical Notes from New Zealand

Specially Contributed.

On the recommendation of the secretary-manager, The Tararua Power Board has decided to set up an electrically appointed tea-room in its offices at Eketahuna, with a regular cooking demonstrator.

Central Hawkes Bay Power Board has decided to allow milking sheds to instal a 1,000 watt water heating element in place of the 600 watt at the old charge of £6 per annum, provided that a time switch is installed.

A loan of £20,000 for the purchase and installation of electrical equipment by the Waitomo Power Board, also a loan of £10,000 for reticulation in Stratford county area by the Taranaki Power Board have been sanctioned by the ratepayers.

The Hutt Valley Power Board's proposal to raise a loan of £150,000 to provide further reticulation in the board's area was carried on December 1 by 655 votes to 217. As security for the loan it is proposed to levy a special rate of 17-25th of a penny on the unimproved value of all rateable property.

Picton Borough Council has resolved to inform the Marlborough Power Board that it cannot see its way to link up with the Waihopai hydro-electric scheme on the basis suggested by the board. The chief point of objection is that the board requires from the council a guaranteed revenue of £3,000 per annum.

The secretary-manager of the Tararua Power Board says: "A gratifying feature of our development is the domestic range load. Eighty ranges and heavy duty cookers are in use, twelve of which were installed during November. The total of water-heaters in use has risen to 135, and the list of consumers now stands at 1222."

Hawke's Bay Power Board is making very satisfactory progress with its reticulation work. Houses to the number of 400 have been wired under the block system, while contracts have been let for a further 370 houses, and this work is being proceeded with. A large number of wiremen are engaged and the remainder of the houses should be completed by the end of January.

Teviot Power Board has recently increased the capacity of its generating station by the addition of a new 500 kw. unit, which was brought into commission at the end of November and raises the output of the plant to 1,000 kw. Though it is only two and a half years since the original plant was opened, the demand for current for all purposes has exceeded the most optimistic anticipations, and at the beginning of 1926 it was found necessary to make arrangements for the installation of an additional machine.

Wairarapa Power Board now has 129 electrical cookers installed as follows:—Masterton, 39; Carterton, 25; Greytown, 5; Featherston, 25; Martinborough, 35.

The board also has a total of 138 electrical water heaters installed as follows:—Masterton, 75; Carterton, 23; Greytown, 3; Featherston, 10; Martinborough, 27.

Electric motors in the above districts number 503, showing a total horse-power of 1573.

The switching on of electric light to Totara Valley (South Canterbury Power Board area) was celebrated on December 10 by an enthusiastic gathering of residents. The chairman of the board stated that the prospects for the success of the undertaking were very encouraging. The Sutherlands and Cave line would shortly be commenced, and the only big line remaining in the Levels County that they hoped to build, when sufficient support was forthcoming, was the Otipua line. A poll would shortly be taken in the Mackenzie county where it was expected that a line would be carried through to the back country via Hazelburn. Further extension was now going on in the Waimate district and shortly the whole district would be reticulated from Four Peaks to the Waitaki.

The engineer-manager of the Waitaki Power Board (Otago) in a recent report, stated that work is being energetically pushed ahead in various districts, and many inquiries are being made from districts in advance of their detail canvassing.

A very good display was given at the A. & P. show, and a most successful cooking demonstration carried out. This was a very good advertising medium, judging from the interest taken by country people in the uses of electricity. The services of a good cook were secured.

House-wiring is practically completed in Weston, Ardgowan, Alma, Totara, Reidston, Maheno and Kakanui, and the board is now working in the Enfield district and towards Ngapara. In the town itself applications have been dealt with during the year.

The following tenders have been accepted for the Waikaremoana hydro-electric scheme:—Two 20,000 k.v.a. generators, £29,242 (Metropolitan-Vickers Electrical Co. Ltd.); two 28,000 b.h.p. turbines, £21,686 (Sir W. G. Armstrong-Whitworth & Co. Ltd.); seven 6,666 k.v.a. single-phase transformers, 11,000/110,000 volts, £15,794 (Metropolitan-Vickers); indoor control gear and switchgear, £5,424 (English Electric Co. Ltd.); two main pipe-lines (6 ft. 6 in. dia., reducing to 5 ft. 6 in., each approximately 3,655 ft. long), £57,869 (Dunedin Engineering & Steel Co. Ltd.); one 80-ton electric crane for generator room, £3,947 (Herbert Morris).

Tenders for 50 k.v. and 110 k.v. outdoor switchgear and for head-gates and sluices for main pipelines close on January 4, 1927.

The construction of the power house is progressing. The Government has promised electric supply from the Waikaremoana power station in April, 1929.

To provide equipment to meet the increasing demands for current, the Springs-Ellesmere Power Board proposes to raise a loan of £20,000 and a poll of ratepayers will be taken on December 15.

In outlining the proposals recently the general manager said that there was a growing demand for current for cookers. The board, which was one of the first constituted under the act, had a load of 20 kw. in June, 1922, but the present load was seven times that amount. The revenue from the sale of current had grown from £2638 in 1923 to nearly £12,000 for the year ending March 31 last, and there was every prospect that this financial year it would reach £15,000.

The connected load had grown from 205 kw. in 1923 to 2225 kw. in 1926. Practically the whole of the original loan of £60,000 for reticulation had been spent, and now it was found that a further substantial sum was required to extend service and augment the supply.

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Publications Received

Ahrem's Tools.

Catalogues of "Good Line" and "Crest" brand tools, etc., have now been received in Sydney by Ewald Ahrem's representatives, Colin Maxwell & Co., of 204 Clarence-street.

B.H.P.

These letters indicate the ferric products of the Broken Hill Proprietary Co., Ltd. A few years ago they issued a wall calendar, the mount of which was a thin sheet of steel rolled at their works near Newcastle, New South Wales. Since then, without renewing the mount, which is good for long enough, they have kept recipients supplied with correct date slips. A set of these for 1927 reached us well before the end of the previous year. The mount itself shows in bold printing what the company are and what they stand for as manufacturers.

Blackman Fans.

Dated November, 1926, the Blackman Export Co. Ltd., of 374 Euston-road, London, N.W.1, have issued a sectional catalogue dealing with their "Streamline" propeller fans. These are made for a variety of uses and for belt, rope or electric drive. The blades of the "Streamline" are hollow, with both sides convex, and as the stays are firmly fixed inside the whole blade presents a smooth surface, offering the minimum resistance to the air flow. Illustrations and full particulars are given in the booklet now before us.

The issuing company are represented in Victoria by Warburton, Franki (Melb.), Ltd., of 380 Bourke-street, Melbourne.

Forgan's Shares.

Before the old year had quite run its course, J. and R. Forgan Ltd., of Crystal Brook and Port Pirie, South Australia, placed in our hands a copy of their wall calendar for 1927. This firm of ironfounders and general engineers are known all over Australia for their shares—cast chill plough and cultivator shares, and steel cultivator shares. They are also known to us at least for the artistic excellence of the calendars they distribute from year to year. The present issue carries a coloured picture entitled "The Melody of Earth," a sunset scene introducing a wheel-worn road passing over an old stone bridge, a homely farmhouse, green fields and leafy trees lifting their heads into the light of the setting sun. An American picture of much suggestive charm, it was engraved by an American company.

Commonwealth Year Book.

Uniform in size and style with previous issues comes No. 19 of the "Official Year Book of the Commonwealth of Australia." It runs to 1070 pages, 9 x 6, and bears the names of Mr. Charles H. Wickens, the Commonwealth Statistician and Actuary, and Mr. John Stonham, the editor. Although dated 1926, it cannot, of course, give any figures for that year, but it carries most records up to the end of the official year, 1924-25. Graphs and maps are again freely used, and the indexes are as full and satisfying as ever. The chapter on forestry is followed by an article on "Forestry in Australia," specially prepared for the present issue. With this book at his elbow no editor need be at a loss regarding any important fact about the Commonwealth and life upon its wide-spreading surface.

"Bahco" Tools.

Catalogue No. 1602 issued by A/B. B. A. Hjorth & Co., of Stockholm, Sweden, is a well-printed presentation of well-made tools, tools guaranteed by the manufacturers. Those specially illustrated are adjustable spanners, pipe wrenches, pipe cutters, pipe vyces, pipe benders, hand punchers, and smiths' tongs, all bearing the "Bahco" brand and all made of selected Swedish steel, drop-forged and specially hardened "The "Bahco" roller crow-bar for shifting heavy cases and other loads is also shown. "Bahco," the registered trade mark of the company, is stamped on every article of their manufacture. The extensive works of the company at Stockholm are depicted by way of frontispiece.

Our copy of a very interesting publication was forwarded by the company's agents, Walter A. Cox, Ltd., of 195 Clarence-street, Sydney.

Twenty-Five Years.

Formed in "the first year of this century" the London firm of Francis Chapman, Sons & Deekes have signalised the completion of twenty-five years of business by the issue of a souvenir volume beautifully printed on art paper. The firm are buying, shipping and insurance agents, special attention being devoted to Australia and New Zealand. The founder of the business, the late Mr. Francis Chapman, had been manager in London for McLean Bros. & Rigg Ltd., of Melbourne and elsewhere, and when he established the new business he took with him as buyer Mr. James Deekes, who had been on his buying staff. In a few years Mr. Deekes was given a direct interest and he is now the senior partner, the other partners being Mr. F. R. C. Chapman and Mr. H. A. Chapman, sons of the founder, and Mr. L. M. Deekes, his own son. Mr. Francis Chapman died in 1916. Machinery and hardware of all kinds are bought on commission by the firm for shipment to different markets, and illustrations are given of machines and engineering equipment actually supplied through them to different purchasers.

For twenty years the London office of the firm was at Hopetoun House in Lloyd's-avenue, but since 1920 roomier premises have been occupied in Australia House in the Strand. The head office is under the joint control of Mr. James Deekes and Mr. Harold A. Chapman with Mr. Javan, who has been in the business since its inception as manager.

Mr. F. R. C. Chapman opened a branch of the business in Sydney in 1910 and now has the assistance of Mr. L. M. Deekes. Although he has practically lost his sight, Mr. Chapman carries on as chief of a growing branch located at Castlereagh House in Castlereagh-street. The Melbourne agency is in the capable hands of Mr. W. H. MacLennan, now to be found at 499 Little Collins-street. Mr. A. J. Austin is the Queensland representative, while South Australian interests are looked after by Colton, Palmer & Preston Ltd. and Clutterbuck Bros. (Adelaide) Ltd., and Western Australian interests by McLean Bros. & Rigg Ltd. For over sixteen years the firm have been well represented in New Zealand by H. E. Cooper & Co., the partners in which firm (Messrs. H. E. Cooper and E. E. Grimwade) are among those gentlemen connected with the business whose portraits appear in this interesting volume. Since 1922 the firm have been directly represented in South Africa by A. J. Stephenson & Co.

What is the difference between your ironmonger and your shoemaker?—One has sold nails and the other has nailed soles.

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Machinery

The "Turbine" Patent Furnace.

The problem of fuel economy is necessarily bound up with that of combustion. Given a perfect system of combustion, or one which admits of the nearest approach to absolute control, it is obvious that good fuel can be made to render greater service, while poorer fuels, or materials which otherwise would be almost useless for steam raising, are brought within the range of practical utility.

A striking advance in the control of combustion is presented in the turbine patent furnace invented by Mr. Chadwick, and constructed by the Turbine Patent Furnace Co. Ltd., of Gray's Inn-road, London. The name "turbine," the inventor explains, is justified by the functional analogy presented by this furnace to the jet and blades of an impulse steam turbine of the De Laval type. The object of that turbine is to secure equality in the flow of steam past each of the blades lying at any moment opposite the mouth of the steam nozzle. The object of this furnace is to secure the passage of the air through the fire bars at a rate which shall be, as nearly as possible, equal over every square foot of the length and breadth of the grate. It is unequal combustion which constituted the weakness in many furnaces. "Holes" are formed in the area of too active combustion, and dead spots cause the smoke nuisance. The irregularity in the flow of air through the grate is the cause of the trouble.

Various means have been adopted in the past to secure this even combustion, but in many cases the cost of construction has been high. A leading feature of the turbine patent is the simplicity of installation. Then again it will efficiently consume almost any material. Slack, cinders, coke breeze, and similar substances are successfully used. In addition to sawdust and other dry material, such unlikely fuels as wet woody and general vegetable refuse can be used with good results. In tests recently carried out in South Africa, using bagasse or sugar-cane refuse as fuel, it was found that this furnace gave excellent results. It is stated that the boiler used in these tests evaporated 47 per cent. more water with bagasse than its rated evaporation for good coal.

In a description of the construction of the turbine furnace, as applied to a Lancashire boiler, the arrangement is said to consist of a series of troughs which lie side by side, and form the base of the furnace. These troughs carry the fire bars. The troughs have a cross-sectional area, diminishing from the front to the back. The front of each trough forms an air injector, and is fitted with a steam jet. This arrangement of the troughs is a special feature of the furnace, causing the air supply to be distributed evenly over the fire. The even distribution prevents the formation of "holes" and unequal burning. Another special feature lies in the form of the fire-bars. These are of V section, inclined to meet the incoming air blast.

The whole apparatus is self-contained. It rests in the boiler flue without the necessity of drilling for bolts or rivets. Owing to the form of the bars and the distribution of the draught, very small fuel may be burned without choking of the bars, and but little ash makes its way through the troughs.

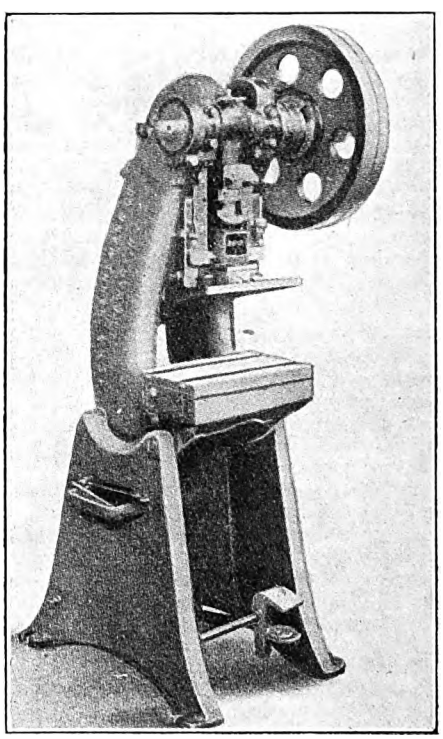
On this side of the world the invention is handled by the Turbine Patent Furnace (Australasia) Pty. Ltd., of 55 Derham-street, Port Melbourne, of which company Mr. Alfred T. Harman is the controlling director.

Reclinable Power Press.

The Zeh & Hahnemann Co., of 182 Vanderpool-street, Newark, N.J., U.S.A., have placed on the market an improved line of reclinable power presses, known as Type 36.

These presses have been designed to afford greater strength for the heavier dies now used, and can be tilted to an angle of 40 deg. The frame is pivoted in front so that the height of the table remains the same in any position. The tilting mechanism works easily, and the frame is positively supported by an elevator screw.

The clutch is of the single-stroke type, and will not make a second stroke even if the operating treadle is not released. It can be made to repeat,



however, by throwing over a small lever. A finger and treadle guard is provided, making the machine absolutely "fool-proof."

The flywheel is of the disc type for greater safety. The larger presses have a releasing brake which acts only during the required part of the stroke. Lugs for tierods are also provided, making them suitable for heavy stamping work. Presses are furnished with an adjustable stroke on order.

The type 36 is built is seven sizes: Nos. 2, 3, 4, 4½, 5, 6 and 7. By squaring the number, the normal capacity of the press in tons is obtained. All presses are tested at an overload of 50 per cent. The net weight of the smallest size, 2, is 650 lb., and the floor space required is 24 by 28 in. The weight of the largest size, 7, is 7000 lb., and the floor space 52 by 60 in.

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Detachable Chain Belting.

As Australian representatives of the Michigan Sprocket Chain Co.. Detroit. Mich., U.S.A., F. Lowe & Co. Pty. Ltd.. of 369-71 Lonsdale-street, Melbourne, have issued a new catalogue showing a complete range of chain belting, sprocket wheels, take-up boxes, pulleys, hangers and other requisites carried in stock by them. They claim to be the pioneers of the chain belt business in Australia, having introduced the original Ewarts (Ley's, Derby) chain to this market forty-six years ago.

For many purposes chain belting is second to no other, its advantages being as follows:—(1) A positive speed ratio in transmission of power; (2) less wear on shaft journals and bearings, due to chain being slack and thus ensuring the minimum journal friction; (3) unaffected by heat or damp; (4) repaired with the greatest facility; (5) as it will not slip, it breaks when strained beyond its specified working strain. The breakage indicates that something is wrong with the machinery it is driving, thus necessitating prompt attention to probably a slight defect, and remedying that which might, if neglected, eventually lead to a serious breakdown.

These advantages have been fully recognised by users, and chain belting is now employed on a large scale, not only for simple transmission of power. but also for elevating, conveying and labour-saving appliances of very varied character. The processes and material handling of an endless list of industries are being made economical by chain-belt conveyors, elevators and drives. In fact, there is scarcely an industry that cannot profit by correct application of mechanical handling and power transmission equipment.

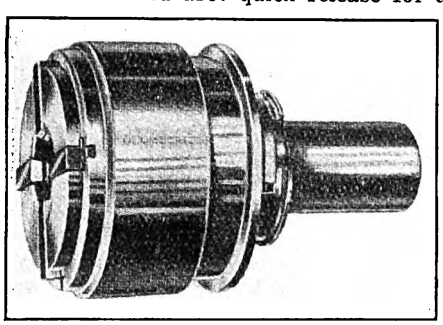
A copy of this catalogue is available on application to anyone interested, and those able to visit the firm's warehouse will be shown a complete range of the belting and other power transmission requisites.

Rotary Opening Diehead.

The Geometric Tool Co., of New Haven, Conn., U.S.A., are manufacturing a new rotary opening diehead, known as the Style K.D. It is designed to meet the need for a flange-type die-head that will trip every time at the point set.

It is claimed to be specially adapted to shoulder threading, and is designed for use on all principal screw machines, turret lathes, drill presses and threading machines.

The diehead is opened and closed by a single yoke. The features claimed are: quick release for adjusting chasers; complete enclosure with no pockets for dirt; large chip clearance; range of diameters with one size head; and no overhang or screws to interfere with shoulder threading.



The chasers used in this style are interchangeable with those of the corresponding sizes for style and dieheads. The chasers can be removed without the aid of a screwdriver. Five stock sizes are made, being $\frac{5}{16}$, $\frac{7}{16}$, 1, $1\frac{1}{4}$ and $1\frac{1}{2}$ in. Special sizes can be obtained to meet requirements.

Self-Locking Pin.

The Groov-Pin Corporation, of 4522 38th-street, Long Island City, N.Y., U.S.A., have introduced a self-locking pin for use in fastening machine parts. The pins are designed to eleminate the reaming of drill holes.

The pin is made by grooving on three sides a cold-drawn, alloy steel cylindrical pin. The steel employed has a tensile strength, of 80,000 and 90,000 lb. per sq. in. The grooves are made wider at the upper end and gradually narrow until they disappear a short distance from the other end of the pin. Two lengths of grooves are furnished, one extending about 80 per cent. of the length of the pin and the other one-half of the length of the pin.

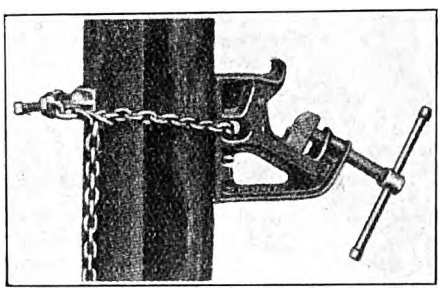
These grooves form three sectors, which are pressed out in proportion to the depth of the groove. In this way the pin becomes tapered, and when driven into a hole the sectors press against the face of the hole and lock the pin.

The pins are available in sizes ranging only from $\frac{5}{16}$ to $\frac{1}{2}$ in. in diameter, but larger sizes are being considered.

Quick Acting Post Vyce.

The Oster Manufacturing Co., of Cleveland, Ohio, U.S.A., offer the post vyce illustrated.

Designed to grip and release the pipe with one turn of the handle, the vyce is of the inclined side opening type, equipped with oil-tempered tool steel saws, which grip the pipe securely without danger of squeezing it out of round. The vyce accommodates pipes ranging from $\frac{1}{8}$ to $2\frac{1}{2}$ in. diameter. Short nipples or couplings up to 2 in. can also be handled.



A special chain and clamp is provided for fastening the vyce to a post, when not possible to fit to a bench, and a special eyebolt is furnished for pipe-bending.

Portable Pneumatic Grinder.

The Chicago Pneumatic Tool Co., of 6 East 44th-street, New York, U.S.A., are marketing a pneumatic grinder, known as the No. 33 "Little Giant," designed for use on all high speed production work.

The air motor consists of three cylinders placed 120 deg. apart. Each cylinder is provided with its own valve of the piston type, permitting short live air ports.

The general construction of the tool is up-to-date, and in operation it is very efficient. The cylinders are machined from close-grained cast iron and the pistons are turned from special low-carbon steel, heat treated and ground. The machine can be dissembled easily and speedily.

The machine is well balanced and there is a minimum of vibration. The no-load speed is 4000 r.p.m. The machine will carry a wheel or wirebrush of 6 in. in diam. and 1 in. face, the arbor is $\frac{5}{8}$ in. in diam., and the complete weight of the tool is $15\frac{1}{2}$ lb.

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Commonwealth Tariff Decisions

The following decisions of more or less interest to the Hardware Trade have been made during December. By way of explanation it should be mentioned that the double number on the left of each entry represents the tariff decision number, while the number to the immediate right is the tariff item, and the date following (6/12/26, and so on) the date on or from which the new decision took or takes effect:—

Copper—

26/768 Blister Copper .. .. 140 (a) 6/12/26
Note.—The reference thereto, in "Guide," page 71, is to be cancelled.

Iron and Steel—

26/773 Bars—
Steel, bright, soft cutting, $\frac{15}{16}$-inch and 1 inch hexagon shaped, for use in the manufacture of spark plugs, under security. (By-law No. 1465.) 404 5/10/26

26/774 Bars—

Iron and Steel—
Steel, mild, copper alloy, 11 feet x 12 inches x $\frac{3}{16}$-inch, for use in the manufacture of railway ballast waggons, under security. (By-law No. 1463.) 404 2/8/26

Machinery, Machines, etc., viz.:—

26/777 Motors—T.D. 26/661 and By-law No. 1384 are to be amended by inserting the figures and letters "¾ h.p." after the figures and letters "½ h.p.," appearing therein. (By-law No. 1462.) .. 9/9/26

Machinery, Machines, etc., viz.:—

26/778 Rubber working, viz.:—
Equalising and flipping machines, bead, for use in the manufacture of rubber tyres. (By-law No. 1464.) 174 12/3/26

Oils—

26/779 Asphaltic Flux (manufactured by the Barber Asphalt Co., Phil., U.S.A.). 229 (b) (5) 6/12/26

Discs—

26/782 Tungsten, for use in the manufacture of all kinds of electrical apparatus and appliances. (By-law No. 1485.) 404 23/11/26

Electrical Appliances and Materials—
Alloys, resistance, for use in the manufacture of all kinds of electrical apparatus. See "Metals — Alloys." T.D. 26/801.

Electrical Appliances and Materials—

26/786 Switches, remote control 415a (2) 19/11/26
Switches, time, controlled by clockwork mechanism .. .. (By-law No. 1475.)
Note.—The reference to "Switches —Time, etc.," in "Guide," page 115, is to be cancelled.

Metals—

26/801 Alloys, resistance, in the form of wire, bars, rods, sheets, or strips, for use in the manufacture of all kinds of electrical apparatus and appliances. (By-law No. 1480.) 404 15/7/26
Note.—T.D. 25/493 and By-law No. 780 having reference to Resistance Wire are to be cancelled as redundant.

Sheets—
Alloys, resistance, for use in the manufacture of all kinds of electrical apparatus. See "Metals—Alloys." T.D. 26/801.

Wire—
Resistance, for use in the manufacture of all kinds of electrical apparatus. See "Metals—Alloys." T.D. 26/801.

Axes—

26/804 Mortising .. .. 208 (a) 20/12/26
Any such axes as were in direct transit to Australia on 20/12/26 may, however, be admitted under Item 219. (By-law No. 1490.)
Note.—The reference to "Axes, including Slaters' Axes," in "Guide," page 18, in Consolidated By-laws, page 32, and in By-law No. 25, is to be amended to read "Axes, including Slaters' Axes, but not including Mortising Axes."

Chisels—

26/806 Hammer Head and Mallet Head (Masons' tools) .. .. 208 (a) 20/12/26
Slate splitting (similar to Masons' Bolsters) .. ..
Any such chisels as were in direct transit to Australia on 20/12/26 may, however, be admitted under Item 219. (By-law No. 1493.)
Note.—The reference, "Chisels, including Cross-cut (steel) Chisels," in "Guide," page 60, in Consolidated By-laws, page 33, and in By-law No. 25, is to be amended to exclude the above-mentioned chisels, and the reference to Masons' tools in "Guide," page 376, in Consolidated By-laws, page 38, and in By-law No. 25, is to be amended to exclude hammer head and mallet head chisels from the provisions of Item 219.

Drills—

26/807 Star bit or cross bit (Masons' or Bricklayers') .. ..
Wall, diamond point or chisel point (Masons' or Bricklayers') .. .. .. 208 (a) 20/12/26
Any such drills as were in direct transit to Australia on 20/12/26 may, however, be admitted under Item 219. (By-law No. 1497.)
Note. — The reference to Drills, being tools of trade, in "Guide," page 88, in Consolidated By-laws, page 34, and in By-law No. 25, and the reference to Masons' tools in "Guide," page 376, in Consolidated By-laws, page 38, and in By-law No. 25, are to be amended to exclude the above-mentioned drills.

26/810 **Froes, Shingle, and Paling** .. .. .. 208 (a) 20/12/26
Any such froes as were in direct transit to Australia on 20/12/26, may, however, be admitted under Item 219 (By-law No. 1494.)
Note.—The reference thereto in "Guide," page 134, in Consolidated By-laws, page 35, and in By-law No. 25, is to be cancelled.

Hammers—

26/811 **Masons'** .. .. 208 (a) 20/12/26
Any such hammers as were in direct transit to Australia on 20/12/26 may, however, be admitted under Item 219. (By-law No. 1496.)
Note.—T.D. 23/68 and the reference to Hammers, including pneumatic hand, etc., in Consolidated By-laws, page 35, and in By-law No. 25, and the reference to Masons' tools in "Guide," page 376, in Consolidated By-laws, page 38, and in By-law No. 25, are to be amended to exclude the above-mentioned hammers.

Handles—

26/812 For bits, being steel handles with a slot at one end into which the claw bit fits (Masons' tools). 208 (a) 20/12/26
Any such handles as were in direct transit to Australia on 20/12/26 may, however, be admitted under Item 219. (By-law No. 1495.)
Note.—The reference to Masons' tools in "Guide," page 376, in Consolidated By-laws, page 38, and in By-law No. 25, is to be amended to exclude the above-mentioned handles.

Machinery, Machines, etc., viz.:—

26/813 Fans, electric, with fan blades attached to motor spindle and with frame specially constructed for attaching over a vent in a wall are regarded as ventilating fans and are classifiable under Item 176 (f) in accordance with T.D. 26/111. .. ..
Note.—Photographs will be forwarded to Collectors.

Pipes and Tubes (Metal)—

26/815 Brass tubing, rope pattern, for all purposes. (By-law No. 1486.) 404 2/8/26

26/816 **Pritchells, Farriers'.** — See Punches. T.D. 26/817.
Note.—The reference thereto in "Guide," page 305, is to be cancelled.

Punches—

26/817 Blacksmiths', round or square .. .. 208 (a) 20/12/26
Farriers' (also known as Pritchells) ..
Any such punches as were in direct transit to Australia on 20/12/26 may, however, be admitted under Item 219. (By-law No. 1491.)
Note.—The reference to Punches being tools of trade, etc., in "Guide," page 316, is to be qualified accordingly, and the reference to Punches in Consolidated By-laws, page 40, and in By-law No. 25, is to be amended by adding the above-mentioned Punches to the list of those excluded from Item 219.



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Motor Accessories, Including Tools

Buyers' Notes for Retail Dealers

Sydney

William Adams & Co., Ltd., of 175 Clarence-street, Sydney, feature the new "Everready" leak-proof hydraulic oil jack which, by pumping motion of the handle with trifling effort lifts with ease a heavy-bodied car. Encased in oil the parts cannot rust, the jack maintains constant and instant control of the load which it lowers without shock. The series of jacks consist of a baloon type high lift for light 'buses or passenger cars; Model 2 for passenger cars; Model 5 for 'buses and light trucks, and Model 10 for heavy trucks. The firm are sole agents for the manufacturers, Charles P. Rogers & Co. Inc., of New York City. New also is a folding water bag and carrier for motor cars. Finished black or nickelplated, the carrier frame clamps in position with winged screw and is quickly detached. In pressed, open-sided end-locking steel case comes the new "Soc-Kit" No. 333, made by the Keystone Mfg. Co., Buffalo, N.Y., U.S.A. The kit consists of screwdriver and seven sockets in the hexagon sizes ¼, 5/16, ⅜, 7/16, ½, ⅝, and ¾ in. Special and a sole Australian agency is the "Sternol" motor oils for cars, trucks and cycles, in special grade for each make of vehicle to obtain best results. In this category come "Ambroleum" and "Ambrolyte" gear box lubricants wherein, clinging to the teeth, the compound ensures silent gears.

The Australian General Electric Co. Ltd., of "Mazda House," Wentworth-avenue, Sydney, have ample stocks of the new style "Tungar" battery charger which charges automobile starting and lighting batteries without noise, simply and automatically from alternating current socket.

Bennett & Wood, Ltd., of Pitt and Bathurst-streets, Sydney, among many new lines feature the "BT" ammeter by Westinghouse, without coils or connections, for clamping to the dash board with the battery cable inserted in its yoke; the instrument in 20-0-20 and 30-0-30 amperes, on black or frosted dial, indicates whether the batteries are charged and the generation is functioning. For motoring comfort is the Australian made Crawford "Accelerest," whose footplate fitting under the waist of the foot adjusts to the height desired, poising the driver's acceleration foot in natural position. Connecting directly to the carburettor comes the "A.C." air cleaner which by special function eventually collects the dust in a removable container, thus tending to eliminate wear and carbon deposit. Built without gauze or chamois leather, the latest in petrol filters, the "Zenith," doesn't choke. It is virtually a self-cleaning filter wherein by upward filtration all impurities extracted from the petrol collects on the outside edges of the rings when they are washed to the bottom of the bowl there to accumulate visibly. Operating while the car runs, the "Purolator" oil purifying system does way with motor troubles engendered by contaminated oil and the oft needed draining of the crank case; it comes in types to suit passenger cars, tractors, trucks and so on. Special is the Bear axle gauge which locates the tendency of front wheels to wander, also "shimmy," and finds the cause for cupping and gouging of front tyres and twisted axles.

Robert Bosch Supply & Service Co. Pty. Ltd., now domiciled at 247 Elizabeth-street, Sydney, stock a dynamo-magneto for motor cars, in which combination the dynamo and magneto are mechanically coupled, yet are electrically separate. The dynamo functions as does a separate dynamo, while the design of the magneto is a new departure combining into a machine which has several advantages. Models of the Bosch magneto are in stock to serve every type of internal combustion engine. Owing to the construction of the Bosch starter, easy engagement of the pinion with the fly wheel is attained by mere pressure of the button on the switchboard. When pinion and fly wheel are engaged an automatic switch, released by the revolving pinion, switches on the main winding of the starter which thus develops full power. Sparking plugs are in models to suit all kinds of engines. In the Bosch lubricator its point of lubrication is fed by a separate oil pump. Mechanical force feed is the vogue, even ensuring lubrication with fresh oil; the lubrication functions against very high back pressure. Available is the Bosch lighting set with devices for regulating the voltage which in its turn automatically regulates the battery charging current irrespective of the speed of the engine. If the battery wires become broken the light may be run direct from the dynamo.

Brandt Bros. Ltd., of 236 Pitt-street, Sydney. make acetylene headlamps for motor cars and for a fixture to the running board nickelplated acetylene generators for these. Electric headlights are in drum type with anti-glare lenses, and are finished black and nickel. In stock are tail lamps for kerosene burning and tail lamps for electric current. Parking lights are in both drum and torpedo shape, and side lamps for kerosene oil come in black stove enamel finish with brass or nickel fittings. Calcium carbide of Tasmanian make is stocked in all grades and in package sizes to suit motorists. Number plates in enamel and aluminium are special. Cylinder head copper and asbestos gaskets are made to suit any car, especially those of outsizes or obsolete types.

John Danks & Son Pty. Ltd., of 324-330 Pitt-street, Sydney, have available for motor cars embossed aluminium numbers in plain figures. Tools include a general line of spanners, wrenches and valve grinders for motor uses. Special is Berger's motor gloss enamel in seventeen handsome colours, including buckskin brown, storm grey and the new torpedo grey, and white and black, which, properly applied, makes the old car look like new. Special, to renovate shabby canvas motor hoods, is the "Unity" rubberised hood dressing. Waterproof and pliable, the preparation comes in standard colours and glistening black, put up in quarts and pints.

William Easy Ltd., of 38 Wentworth-avenue, Sydney, specialise in a new air filter, the "Simplex," which is made in their own factory. Any of the seven sizes of "Simplex" is easily affixed to any make of motor vehicle or tractor and when installed functions without special attention. Its component parts consist of a frame of steel wire covered in a single piece of felt specially prepared for the purpose, with aluminium lid; spider winged filter complete,

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and outer shell formed of specially stamped metal and thick washers of felt between these ensures dust-proof connection. A flexible, airtight and dustproof steel hose complete the outfit. Having a filtering area two hundred per cent. in excess of the carburetor air-intake, the velocity of the ingoing air is reduced so that impurities become separated, falling naturally on the filter and housing, whence the vibration of the running engine shakes the accumu lation through discharge vents in the floor of the filter housing. Thus, cleaned air alone enters the carburetor, ensuring perfect mixture, whereby, it is estimated, the "life" of the engine is greatly prolonged.

W. S. Friend & Co., of 113 York-street, Sydney, show a new double-end steel spanner which suits S A E nuts in four sizes. Special, in double-proof brown canvas roll with looping twin leather straps to hold the items, is a new and handy motor tool kit consisting of ball pein hammer, set of pliers, spanner of "King Dick" pattern, file and handle, screwdriver, "Crescent" wrench, cold chisel, three sizes of double-ended spanners, centre punch, and double-end box spanners in three sizes. Wooden boxed are Ford sets in different series. In tappit wrenches are the sizes 5/16 x 1/2, 11/16 x 5/8 and 3/4 x 7/8 inch, which are the opening sizes of the spanners. New is a special motor spanner set of six for Ford cars, named "The Ford Set." For lubrication is the new "Flexical" oil can of copper; a motor grease pump of brass with triangle bar handle on the plunger; and another pump with plunger bent into hand grip. Rim wrenches are in all sizes, and the "Weed" chain jacks are new, as are tie-lock chains and "Acco" battery carriers of chain covered with leather for handgrip. New and special is "Lock-Tite" banding in various colours, and the "Hidden Binding" with welt core which, like the "Lock-Tite," folds back over the car upholstery tacks and closely cover these. Black motor topping and imitation leathers in various colours for car upholstery were among the other lines seen in this firm's warehouse.

Grimley Ltd., of "Monarch House," Broadway, Glebe, Sydney, have inaugurated a motor replacement parts department where crown wheels, axles, engine bearings, and all other parts are available for all makes and models of cars and trucks. Ford parts and "Timken" bearings are there; "U.S.L." batteries remains a special line, and in stock are cylinder head gaskets for American and Continental cars; transmission gear and shafts; steel starter gears for fly wheels; "Sterling" starter cranks; universal joints and parts; universal joint fabric discs, and complete range of compressors and air tanks for garages. "Mosco" and "Cyco" wheel pullers are special. Interesting is the "Spray-Lac" unit for spraying on motor vehicles the new "Duco" paint. Mounted on a wheel-castored trolley, this two-cylinder sprayer is provided with 35 ft. of air hose for the paint, fitted with spray and tested valves, ready for use to be electrically driven off main current. "Monarch" brake lining is the firm's own brand. In 15 oz. tins is the new "Duco" polish for polishing that name of spray paint. New is the "Monarch" extra air with pistol handle and "Off" and "On" on blue indicator. Available are "Blackhawk" rim wrenches; cheap Arnheim rimbraces; "Perfect" screwdrivers; "Omega" valve tools; Steven's "Fits-a-Ford" wrench which takes 95 per cent. of all bolts and nuts on Ford cars, and all other tools used by the motor trade. The "Vitalic" hammer has a mallet head of solid rubber for straightening out dents in mudguards, knocking out shackle bolts, and for such purposes, without marring the place.

Hill. Magill Ltd., of 131-133 York-street, Sydney, stock the useful appliances for motor cars manufactured at Newcastle by Andrews Ltd. The "Monogram" automatic in 3/4 and 1/2 in. sizes extra air attachment, is offered as a most efficient air brake and petrol saver. Made throughout of steel is the Andrews rim-tool which, clasping each side of the rim by joint, by ready hand leverage raises and laps the joint, leaving the rim contracted for removal from the tyre. It is made in car size, truck and garage type. Provided with odourless canvas water bag 12 x 1 in. is the new quickly detachable folding carrier in black or nickelplated finish. For use on the running board where it is clamped by a patent device permitting attachment or detachment in a few seconds, is the new folding luggage carrier in rail-and-stud style in two finishes and three sizes.

Holdsworth, MacPherson & Co., of 252 George-street, Sydney, in their new motor accessories department include a new patent vizor whose back frame is of 18-gauge steel tubing to eliminate breakage of glass through vibration. In 12, 15 and 18 in. is the new "Norris" petrol pourer of brass, with rubber washer, whose end forms the tin cutter. Bumper bars and fender guards are in nineteen styles in single, twin and three-rail bars, in duplex and light duplex, in flat fender, and also rail-edge fender guards, all plated on copper. New and simple in operation is Andrew's rim tool in car, truck and garage types. Suiting both running boards and instantly detachable is a folding luggage carrier with patent clamping device, in three sizes. Also for running board use is a carrier in lattice style. In 1/2 and 3/4 in. is Andrew's "Monogram" automatic new extra air attachment petrol saver and air brake. Special is the radiator "Neverleak" liquid compound which, poured into a leaky automobile regulator, mixes with the water, is carried to the leaks where, coming in contact with the air, it coagulates and sets into an impermeable plug without impairing the cooling system. "Weed" chains for all tyres are in a number of different styles, and sparking plugs and other requisites are carried in wide variety.

Mason Bros. Ltd., of 102 Clarence-street Sydney, have in stock useful motor spanner sets of black wrought iron octagonal sockets and handle, packed in wood box inscribed "The Motor Set"—an Ahrem line this.

McPherson's Pty. Ltd., of 51-65 Bathurst-street, Sydney, stock the high-class Australian made "Bes" 3-point sparking plug which ensures a positive spark under any conditions. In nickelplated case, with 1 1/2 in. diameter dial and screwed gas-pipe thread, the "Amco" tyre pressure gauge registers to 120 lb. air pressure. Easily attached to any running board and folding compactly, is the fully equipped "Yankee" pump, in which category for foot-manipulation comes the "Prima" foot pump. "Raybestos" brake lining is stocked in seven sizes from 1/2 to 5/8 to 1/4 x 2 1/2 in. Containing 108 sq. in. auto-vulc and cement for instantly repairing motor tubes without heat, tools or chalk, is the "Auto-vulc" tube patch outfit. In size a man's little finger, the "Airco" ignition gauge in hard rubber insulation shell contains a glass tube of "Neon" gas whose orange-red flashes when electrified, by the variation of regularity and relative intensity, reveal ignition troubles. The No. 288 automobile valve grinder tool in cast iron casing, with hardwood crank handle anl lignum-vitae head, rapidly and easily grinds automobile valves. Accompanying spanner and blade permits its use on cars of various types. For Ford and other valves with 5/16 in. stem and cast iron valve heads, is the "Savidge Junior" valve lathe with turning crank.

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Instead of jacking up the car the Knowlson spring leaf spreader in a few minutes opens the spring leaves sufficiently for insertion of the lubricant. A number of other tools and requirements are shown by the firm.

David Mosely & Sons Ltd., of 105 Bathurst-street. Sydney, now present their ribbed tyres with ridges strengthened by cross insets 4 in. apart on the working portion of the tyre. For motor cycles is the Mosely cable new studded thread in seven sizes, and all the usual styles of tyres for cars are available. In the motor and motor cycle section accessories are prominently in evidence. For motor cycles in display boxes is special quality rubber solution at flash point over 73 deg. Fahr.; French chalk in 1 lb. lever lid tins and 7 lb. bags; patching strip in rolls 36 x 3in. and strip 9 x 1½ in., and self adhering repair canvas with sticky face for inside covers in rolls 36 x 3 in. Repair outfits Nos. 1 and 2 contain all necessaries in tins packed so as not to rattle. Boxed in pairs with tape for fixing are vibration-absorbent handle grips. Clip-in gaiters for outside repairs to covers are correctly shaped to the rim and are with metal clips. Other lines available include inside plaster, unkinkable acetylene lamp tubing, green-braided inflator connections with spring collar and swivel end, foot-rest rubbers, soft and pliable horn bulbs, and solid grey rubber brake blocks.

Noyes Bros (Sydney) Ltd., of 115 Castlereagh-street, Sydney, stock the new "Seiglite" sheet, which contains neither rubber nor rubber substitute, is suitable for oil, grease and gasolene, and is ideal for hot and cold water and air service. It comes in 1/32, 1/16 and 1/8 in. sizes, which correspond to the weights 12, 24 and 48 oz. respectively per square yard. Invaluable for motor repair shops is the Morris portable jib crane which travels on frontal body wheel and two wheel-ended balance spreaders. By its handle one man can tow the crane to the motor car, with the crank handle lift out the engine and, keeping it in suspension, run crane and load into the shop to any position desired. It is available in the capacities ¼, ½ and one ton. Excellent for motor shops are Morris pulley blocks of triple gear type whose gears are entirely closed against dust, steam, fumes and moisture. Ball bearing hooks are available for these hoists. Philips' automobile lamps for all kinds of cars represent a sole agency.

G. P. Pooley Ltd. (formerly Gibbes & Pooley Ltd.), of 143 Castlereagh-street, Sydney, are agents in Sydney for "Boyce-ite" oil compound, manufactured by the Boyce & Weeder Co. Inc., an American firm. Instantly soluble in petrol, the compound improves the running of motor cars when used in the proportion of a 4 oz. tin in ten gallons of petrol. By removing carbon knock the compound serves as an aid to greater power, flexibility, and smoother running. Motor accessories in wide range and all necessary tools for the motorist are in stock.

Smith, Sons & Rees Ltd., of 30-32 Wentworth-avenue, Sydney, now stock a complete range of replacement parts ranging from axle and propeller shafts for all kinds of cars through Duckworth silent chains for American, and Brampton chains for Continental cars, to 350 sizes of Brico rings in stock, all sizes new Brico "Scraypoil" piston rings which obviate sooted plugs, and a full range of solid and cored phosphor bronze sticks. That pulse of the engine, the "K.L.G." sparking plug, is in stock with renewable centres for most kinds. Peto and Radford's batteries, and "Dagenite" one-piece batteries, including one designed to fit in the running board and suit the electrical system of Morris cars, are distributed by this firm. By Rotherham & Sons Ltd., Coventry, England, are all taps, lubricators and valve work for all motor, cycle and aero trades. New in bracket, flush and motor cycle types, are Tapley gradient meters which measure road gradients, acceleration and deceleration, tractive and air resistance, time and distance in which a car can be stopped, and other car performances, indicating these on standard, alternative and percentage dials. New are the Bosch electric automatic windshield wiper of latest and improved type operated by small electric motor on the battery current, and the "Malco" automatic windshield cleaner.

Swans Ltd., of 304 Pitt-street, Sydney, feature the Wheeler-Schebler Carburetor Co.'s latest in carburetors, which fits the car by merely adjusting the idle adjusting screw, conferring easy starting, slow idling, slow running in top, rapid acceleration, great power, and more miles per gallon of fuel without loss of power or flexibility. These Schebler carburetors are in supply to suit the engine of any make for car, motor cycle, tractor, boat or aeroplane. The firm are sole agents for Australasia. Increasing the lead in favour is the "Shield" extra air, and the "Coaster" extra air for motor cycles. Sheet aluminium in nine gauges from 30 to 14 inclusive is in stock.

W. G. Watson & Co. Ltd., of 279 Clarence-street, Sydney, tell of important improvements to "Simms" magnetos, made by their principals Simms Motor Units. Thus the SR4 and SR6 magnetos are now fitted with a laminated pole shoe which gives a spark of 5.5 millemetres timing lever fully advanced at twenty-five revolutions per minute. Special for motor cars are "Cosmos" electric lighting lamps which come in vacuum and gas-filled styles. For side and tail the vacuum kind are 2-19 volts tubular, mushroom and festoon, and these also with Fiat or Bosch cap. Gas-filled lamps range up to 35 watts at 50 c.p. and over, with and without Fiat or Bosch cap; while D. F. lamps (Ford) range to and over 32 c.p. The firm are sole distributors in Australia.

Williams Bros. Ltd., of 238 Castlereagh-street, Sydney, give prominence to the "Tecalemit" lubricating spring armour (armoured gaiter) which comes in measurements to suit any make and model of car. In addition to hiding the niches in the springs where deleterious substances otherwise collect, the armour, fitting smoothly, has an enamelled surface which is readily cleaned. A leakfree lubricant-retaining housing is formed by the armour around the spring, and nether water, dust nor dirt find entry through its flexible four-ply construction. This firm holds the agency for New South Wales. Another State agency line is the English made "Fibrent" brake lining in sizes to suit all users. The "Seigilite" sheet packing, name-marked all over, is available in three thicknesses. For American cars are the quietly starting Duckworth silent chain. An agency for this State is held for the "Chanson" bounce absorber made by the "Chanson" Products Corp. of Chicago, U.S.A., which is quickly adjustable for any weight of car by loosening the cap screw and moving the housing in the direction desired. New, too, is the Australian made "Monogram" petrol saver and air brake extra air attachment. An instrument of precision is the "Calometer" made by the Wilmot Mfg. Co. Ltd., Birmingham, whose needle indicates on the dial in all temperatures conditions existing in the engine. The "Stebull" reversible petrol pourer, "Andre" steering damper, and "Hartford" shock absorber are among the other specialties carried by the firm.

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Melbourne

The Australasian Motor Accessories Co. Pty. Ltd., of 321 Elizabeth-street, Melbourne, show a complete range of motor parts and fittings, together with many appliances and instruments in which they specialize. These include speedometers of high grade, clocks, and a large variety of ornamental and unusual mascots. New lines are constantly coming to hand, from which a few selections may be taken for inspection.

An English foot pump with attractive features is made by Wm. Turner & Bro., Ltd., of Sheffield. Known as the patent "Kismet-Duplex," it is practically an air-compressor, and its construction is quite different from the ordinary type. Actually there are two pumps in one. There are two cylinders, the larger of which supplies the smaller with air under pressure. By this means ease of operation is gained by the small cylinder, while delivering the volume of the larger. It is claimed that in this way twice the quantity of air is pumped with but little effort. The "Kismet-Duplex" is highly spoken of by users, and is supplied with a pressure guage complete.

From a Belgian firm is the "Zodiac" inflator. This is easily fitted to any make of car, and runs from the car engine at low speed. The number of direction indicators on the market is legion, but what appears to be a most efficient device comes from Waydicator Ltd., London, their appliance bearing the same name as the firm. The "Waydicator" is mechanically operated, and is attached on a level with the dashboard. By turning a handle in easy reach of the driver, a revolving hand signals to both approaching and rear traffic whether the car is turning to right or left, going ahead or stopping. All contingencies are thus provided for. The hand is thrown into strong relief on backgrounds suitable for day or night. At night-time it shows white in front and red at the rear.

A new electric horn, the "Riemann," 6 and 12 volts, is of two tones, one for the city, and another, much louder, for the country road. It is said to be water and dust proof, and has a pleasing sound. This firm also display the "Fay-Oh-Rite" valve lifter, for removing valves from all types of engine. The chief points emphasised by the makers are that it cannot slip, as the forked ends of the tool hold them in place under tension: one movement compresses the valve spring so that the key may be removed: simplicity of adjustment: and that the forks are so tough that they may be bent into any shape without breaking. This latter quality permits the use of the tool for many odd jobs which no other appliance will handle.

The firm are distributors of "Don" brake and clutch linings, made by Small & Parkes Ltd., of Manchester. This company manufacture their materials from the crushing of the crude asbestos right throughout the various processes. The linings are made either in metallic or non-metallic fabrics, and in every size in use. They are also suppliers of sheetings of the same material.

The great display of lamps should be referred to. Lucas' lamps are amongst the best known of the British makers, and are here well represented. The firm are agents for "Prest-o-lite" goods, and carry stocks of all requirements. For electric car equipment all parts and material may be obtained, including batteries, while the recharging of the latter is promptly attended to in the works of the firm.

John Danks & Son Pty. Ltd., of 391-403 Bourke-street, Melbourne, are distributors of "Oilzum" lubricating oils for all purposes. Both oils and greases of all grades are supplied, the standard of quality being of the highest.

Among a large range of motor tools and accessories are several new lines which should attract attention. N.B. socket spanner sets are a combination brace and ratchet type, giving a selection which meets practically all the needs of the motorist. The various sockets and braces may be sold in sections as required. This is an excellent spanner for universal use, and is expected to prove very popular. A new petrol gauge, Rotheram's "Metreta," is an efficient appliance which fits on the dashboard of the car, while a jack on the cantilever principle shows many advantages over similar types. This jack is operated by a long arm, and its construction gives a very quick action, making it speedy in use. The S. and M. spotlight, which is being displayed by the firm, is the pattern now in use on many of the police cars in the United States. It is compact and well finished, and so powerful that the larger size is capable of projecting a beam as far as 3,800 feet, with a 6 volt battery and 20 C.P. globe. An extension lamp is supplied free with the outfit. The "Champion" windscreen visor is a coloured screen of a celluloid material. Light and strong, it ensures a perfect vision while affording protection from the glare of the sun.

A large stock of motorists' supplies is carried, including bumper bars for all types of car, which are at once a safeguard and an ornament. "Green Seal" car replacement springs are available for all makes. These are of reliable Sheffield steel, and spare leaves are also kept. Special connections and couplings are carried for compressed air outfits; air compressors, air containers, check valves, and air checks. A most useful little equipment for the motorist is a combination electric self-winding cigar lighter, trouble lamp and engine light, ash container, and automatic switching lamp holder. Small parts and fittings in constant demand are bright steel and castellated bolts and nuts in Whitworth, U.S., and S.A.E. threads: "Neverslip" spring washers, with milled faces; hardened steel shackle bolts, all sizes; spring clips; shackles; clutch facings, specially spiral woven; asbestos bonded fabric; aluminuium countersunk rivets, all sizes; Critchley expanding reamers; and taper pins, milled from steel bar, Nos. O to 8 in all lengths. For valve treatment there are reseaters, refacers, grinders, and lifters, also valve stampings. A useful type of spanner is the Armstrong Stevens D.E., drop forged. These are obtainable in S.A.E. and metric sizes.

One of the best preparations for the purpose is the "Kalon" aluminium solder. This will enable the user to solder aluminium to almost any other metal without trouble. Another excellent line for which the firm hold the agency is "Zip" abrasives for all purposes. The "Zip" friction paste is specially good. It will grind crude bearings, eliminating scraping altogether, and is sold in various grades. Again, there is "X" liquid, put up in handy little containers, for repairing leaky radiators and boilers. This preparation has often proved most valuable on the road.

Among a long list of sundries which are always stocked are Imperial measures of all sizes, funnels, goggles, tyre repair outfits, and a host of others. The well-known "Durabestos" brake linings are the product of the U.S. Asbestos Co., and are distributed by this firm. Their quality is of the best, the company manufacturing through every process, from the raw asbestos to the finished article. A line which is not generally handled by the trade is flexible metallic exhaust tubing. It is stocked in all sizes, and in all lengths. Phosphor bronze castings to any order are supplied.

As representatives for the Binks carburetter for motor cycles, the firm are able to offer this appliance. Although slightly higher in cost than many others, it possesses several features which

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give it advantages fully compensating for the extra expense. Quick acceleration and ease of starting have made this type popular for racing models.

William Easy Pty Ltd., of 404 Post Office-place, Melbourne, agents for the Hoffman Mfg. Co., Ltd., Chelmsford, England, carry stocks of the Hoffman ball bearings for all motor and engineering purposes. The different types which are usually in demand include ball journal, ball thrust, radial line shaft and self-aligning bearings.

Another important line for which this firm are sole Victorian distributors is the Corbin speedometer for cars, and all spares. Stocks of these and also the Corbin motor cycle instrument are regularly on hand. A special speedometer made for Ford cars is built for the job, and sells at a reasonable cost. The S525 model has now been in use by Ford and other owners for some time, and has given satisfaction. There are various types of the Corbin for all classes of car.

An appliance which has met with a good demand is the "Simplex" air filter. Fitted with simplicity, the filter has an area far greater than the intake of the carburetter. The process is done through a series of spider wings of fine wire screen and covered with felt.

Asbestonos brake lining is a Canadian material, made in one quality only, and transmission lining is specially recommended for Ford cars. This line comes packed one set in a box, comprising three pieces with sufficient rivets for attachment.

Success has followed the Australian "Kar-care" preparations, of which the firm are distributors. A list is supplied of all products on request. These include such preparations as auto-gloss, a liquid car polish free from wax. Aluminium paint, hood dressings, radiator cement, tyre repairers and various other lines used by car owners everywhere. Put up in attractive containers, these products are worth inspection by the retailer.

The firm carry all spare parts for the Claudel-Hobson carburetters.

A. G. Healing & Co. Pty. Ltd., of 354-58 Post Office-place, Melbourne, are manufacturers and importers of all classes of motor accessories, and specialise in motor cycle spares and fittings. In the latter department lighting and ignition parts and materials occupy a prominent place. Carbide lamps and outfits are still in demand, good selections being available of P. & H. Brown's and leading British makes. These are usually supplied in sets with rear light, but may also be had as units.

With the recent great advances in electric lighting equipment, however, this latter type of light is more generally used. Compact and reliable sets may be obtained at moderate cost for motor cycle equipment. Electric ignition appliances are also stocked by the firm in several good makes.

The supply of such accessories as carburetters, spark plugs, magnetos and other fittings is very complete. There are also numerous repair outfits, several different types of horns, and a large stock of sundries for all machines.

The firm are makers of the well-known Goulding sidecars and parts. These are now quite equal to the imported article, well finished and strongly constructed. The upholstering is excellent. A good windscreen now available is the "Jaken," which may be folded up when not in use, and the same brand of pillion seat is a well made line, and as strong and safe in use as is possible in this somewhat risky form of carrier.

The firm carry in stock the Gilfillan Automotive replacement parts, comprising tools and spares for all purposes. The Gilfillan tools and spanners, as well as electric appliances and ignition parts, are now well established in public favour.

Amongst the host of motor car fittings and parts bumper bars may be quoted, which the firm supply for all makes of cars; tyre pumps, both foot and power, and a very large selection of jacks for all purposes. The usual sundries such as valve-grinding compounds, solders, "Stopit" radiator cement and the like are constantly available.

A section devoted to appliances for use in garages is replete with all the necessary equipment. Walden wrenches and Stevens' "Speed-up" sets adapted for Ford cars, portable tyre pumps and special jacks are important items in this department. All sizes are stocked of Hepworth piston rings for cars or motor cycles, and the firm are the wholesale distributors for T.N. rim repair parts for cars of all makes.

Alexander Mair & Co. Pty. Ltd., of McEwan House, Little Collins-street, Melbourne, have one of the largest and most complete stocks of accessories and equipment for motor vehicles in the city. Amongst important agencies held by the firm is that of Champion sparking plugs. Made by the Champion Spark Plug Co., of Canada, this brand has gradually won its way into the market. The makers claim that the two-piece construction of their plug makes its more efficient, and that it is heat and break-proof. Stocks of Champion plugs for every type of car in use are carried by the firm.

Garage equipment forms perhaps the largest section of this firm's activities. Appliances for all shop and garage purposes are available, and include the various products and apparatus made by Weavers, Stevens, K. R. Wilson, Dearborn, Parmenter & Bullock, and others. Keystone reamers are stocked, Brunner air compressors, and Romort compressed air appliances. Electric drills and grinders as made by the Van Dorn Co. are obtainable in all patterns: also C.A.V. batteries, Alemite and Tecalemite greasers, and Zenith carburetter parts.

Among foot pumps the Kismet-Duplex is a good example of the most efficient type, and another good line is the Renrut" quadruple action. A long list of wrenches for various purposes could be compiled. A few of those noted were Bonny chrome vanadium, all sizes: thin tappet wrenches; large exhaust nut; garage sets, and pump nut wrenches. The firm are service agents for appliances and equipment for Ford and General Motors cars. Gaskets suitable for all makes of car, the "Victor," are of copper and asbestos—a line approved by motor engineers and in use everywhere.

Quite an efficient and useful luggage carrier, the "Suregrip," is now being shown by the firm. This has been designed to meet the need for a strong yet light collapsible carrier, which may be removed altogether if required at any time. When not actually in use it folds down level with the running board, but can be put into working order in an instant. This is reasonable in price, and seems to "meet the case" effectively.

The Motor Spares Import Co., of Elizabeth and Victoria streets, Melbourne, issue a complete catalogue of all spares and accessories used by the motorist. Ajax jacks are stocked in several patterns. The Ajax is a strong article, of pressed steel, to lift cars from 17 cwt. to 2 tons, and sells at a moderate price. Millers Fall jack is fitted with extension handle, which enables the car to be lifted without bending the back. A useful universal valve lifter is displayed, which will take out valve springs on all cars. Valves and valve guides for all cars are available, also springs, pistons and rings, propeller shafts, shackle bolts and bushes, bearings, and all similar parts.

A good selection of spanners includes the B.S.A. block type, to fit American nuts of various sizes. A six-in-one socket set box of spanners is a good

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line, also the "Pennant" tubular box set, consisting of three double-ended spanners and tommy bar. Auto tool kits contain nine tools, such as ball pein hammer, 9 in. screwdriver, 6 in. pliers, wrenches, etc., the entire set being fixed in a strong cloth bag. Quite a variety of wind-screen wipers is available for selection, both hand and electric patterns being represented.

An ingenious device for sending cool air into the front seat of the car is known as the ship's cowl ventilator. The shape is similar to a ship's ventilator. They are ball jointed where they fit on the cowl of the car, and can be turned to any angle, enabling a cool draught to drive out the hot air which accumulates under the dash. Bumper bars are supplied for every make of car, and "bumperettes" for protection of mudguards are made to match any type of bumper used. The firm carry a good stock of lamps and lamp equipment, a host of small sundries, and a big asortment of mascots, from the small quaint figures affected by certain owners to types which are practically works of art.

S. N. Monks & Co. Pty. Ltd., of 544-46 Elizabeth-street, Melbourne, are agents for Jaxon's rims for General Motors cars and trucks, and have just landed large and complete stocks of all sizes. They are also representatives for Hans Renold Ltd., and shipments of those makers' silent timing chains have recently been placed in stock. These are suitable for all the popular American cars. James cast head engine valves are for either English or American cars.

Other prominent lines for which the firm are agents are the products of the Kelsey Wheel Co. Inc.; wood wheels, rims, and rim parts, British Timkin Ltd. (joint agents), Timken roller bearings, and R.B.F. ball bearings, for which a sub-agency is held. The R.B.F. generator ball races are suitable for Delco lighting sets on the Ford, Chevrolet, Buick, Overland, and others, and may always be obtained from stock.

A recent arrival in the way of petrol filters is the Stromberg. In addition to the removal of dirt and water, this appliance acts as a shut-off cock, and admits of a convenient supply of petrol for priming, cleaning plugs, and other purposes, besides preventing clogging of the carburetter. Another instrument is of English origin, from the Autovac Manufacturing Co., and is designed to give the depth, in inches, of petrol remaining in the tank. It is mounted on the instrument board. A small dial face has an indicator which moves across a semi-circular scale, showing plainly the actual depth at any moment. It is operated by simply pulling out a small plunger beneath the dial.

The Accurate Gear Co., of Springfield, Ohio, U.S.A., are makers of flywheel ring gear, which is intended to obviate the throwing away of a fly wheel when the starter teeth become damaged. The new method is to machine off the old teeth, and shrink on in their place a new set of teeth in the form of a steel ring gear. It is claimed that as the fly-wheel is accurately balanced to its crank shaft in assembling, it is mechanically wrong to replace it by one not so balanced. Changing fly-wheels often results in vibration trouble, and it is maintained that it is unnecessary to throw away an otherwise good wheel. It is stated that it is not absolutely necessary to have the width of the steel gear precisely the same; that a properly built steel gear of 11-16 in. width, for example, can be used to replace cast-iron teeth of 1 in. or even 1¼ in. width. This company have therefore simplified their listings of replacement starter gears by standardizing as to widths, and it was found that forty or fifty sizes of gears would service the same number of cars and trucks that heretofore required from 150 to 200 sizes. By this means it is possible to serve a great number of cars with a minimum investment in stock, and give the car owner a prompter service. The manufacturers of the ring gear guarantee that their product will last for the life of the car.

The Rhodes Motor Co. Pty Ltd., of 401-11 Elizabeth-street, Melbourne, are now displaying a number of novelties and useful appliances for the motorist. A compact hand-kit is comprised in a metal box, the size of a battery box, which contains a spare petrol tin, spare oil tin, clip for spark plugs, globe box, tyre repair outfit, and a tool roll for running repairs. This is a most comprehensive little set. Everything is distinctly marked for replacing after use.

Specially made for Ford cars, the "Clyde" battery has a very high output to handle the heavy demands the Ford engine makes. An attractive spotlight, the "Curris" is handsomely finished and gives a long range beam. A long electric flex is wound on a self-coiling drum, allowing the entire light to be detached and used as a trouble lamp anywhere round the car.

An appliance which claims to remove from the crankcase all the mess and "sludge" which contaminates the oil and injures the engine, is known as the Kingston oil-aerator and filter. The Kingston fitting aims at the reduction of dilution by aeration, and the removal of abrasives by filtration. It draws the contaminated oil from the lowest point of the crankcase, and returns clean oil only. There is no difficulty in installation in any car or truck.

The "Clymer" air gauge is an instrument designed to automatically record the air pressure in the tyre while it is being inflated. It may be attached to any hose, the pressure usually aplied to the hose holding the gauge in place. It is adjusted to the pressure required, and as the air is pumped it passes through the gauge and cuts off when the desired pressure is recorded. A whistle sounds a warning when filled. A feature of this appliance is that it is not necessary to remove the hose to see when the correct pressure is obtained.

A new lighting set for motor lorries and char-a-bancs has been marketed by the Villiers Engineering Co., Ltd., of Wolverhampton. The Villiers electric lighting generator dispenses with accumulators, commutator, and their delicate apparatus. It has a rotating field magnet and a stationary armature which render them unnecessary. The output is 12 volts, the cost is low, and it may readily be built into new vehicles or fitted to existing chasses.

The "Don" rim tool, which has become familiar to Australian motorists, has now been replaced by an improved model, which will find favour with users of split rims. The stiffest cover is easily removed —an operation which was formerly a trial of strength and temper. The improved "Don" is smaller and lighter; it is suitable for balloon tyres as well as ordinary, and has several distinct advantages over the older pattern.

Users of Ford cars of models prior to 1926 will welcome the Wright adaptor, which brings the old type brake up to the new pattern. It provides an internal lined brake 11 inches in diameter with 1¾ in. face, which is away from the dirt of the road.

George Russell Pty. Ltd., of 452 Flinders-street, Melbourne, carry in stock all kinds of spanners and wrenches. Shifting spanners are in many patterns, including "King Dick," all sizes; knife handle; and steel with wood handle, while Keystone box spanners are stocked in all numbers.

Other lines of interest to handlers of motor accessories and parts are Goodell-Pratt's bearing scrapers, Disston's magneto files, and for the workshop Starrett's engineering tools and devices.

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Advertisers will kindly note that all alterations to Advertisements should reach us by the 25th of the month.

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Correction.

Through a typographical error which escaped detection in the reading of proofs, the number attending the meeting in Sydney of the Australian Association of British Manufacturers and their Representatives was understated in our last isue. The report should have read "upwards of sixty."

Brass Direct from Mixed Ores.

A process described by A. W. Guertler in "Metall und Erz" produces brass in a novel way. By melting sulphide ores of lead and zinc with metallic copper in excess, copper matte and a mixture of metallic lead, copper, and zinc are formed, which separate, in the liquid state, into a layer rich in lead with little zinc, lead, and a copper-zinc layer with little lead. The last-named is melted with copper and yields a serviceable brass.

Canteen of Rodgers' Cutlery.

Noyes Bros. (Sydney) Ltd. have received advice from their principals, Joseph Rodgers & Sons Ltd., Sheffield, that on November 30 the Prime Minister of New Zealand (Mr. J. J. Coates, M.C.), when receiving the Freedom of the City of Sheffield, was presented with a canteen of Rodgers' "Star and Cross" cutlery, complete with knives, forks, spoons, carvers, ladles, sugar tongs and butter knife. The drawers are fitted with art metal handles and the lower drawer is so arranged that it can be used for table linen. The cabinet is set upon a waiter tray fitted with legs for convenience in use.

Sex in Minerals?

Reports from Moscow announce that a leading Russian scientist, Dr. Manuiloff, has disclosed important evidence suggesting that male and female sex exists among minerals. Dr. Manuiloff is a member of the Psycho-Therapeutic Association in Leningrad, and recently addressed the association on his discoveries. He declared that, after exhaustive experiments, he hopes to prove the existence of one harmonious system of sex throughout the entire creation, from human beings down to stones. In an interview, the Russian scientist said: "While conducting research work with a view to analysing sex in human beings, animals and plants, I have stumbled upon evidence which hints strongly at the possibility of sex in minerals. In this work I have reached my findings by employing radio-active tests. My attention was first arrested by the discovery that the same mineral occurs in two varying forms, the one consisting of cubic crystals, the other of octagonal crystals. In these experiments I have made us of the most typical mineral—namely, pyrites. When crystallised into cubes pyrite has caused the discolouration of the solution in which it was immersed—a typical male reaction. Crystallised into octagon crystals, pyrites gave a typical female reaction. I have repeated this experiment in eleven different minerals and have obtained the same amazing result in each case. I do not dare to affirm that my experiments lead to final and indisputable proof of the existence of sex in minerals. I can only refer to the astonishing evidence, pointing to this possibility," concluded Dr. Manuiloff. The mineral talc would appear to be one that would form a good basis for work by the Russian authority (writes a sceptical American critic). Its wide adoption by the female of the human species would indicate that it is probably masculine, a postulation open to proof.

Foreign Exchanges.

Foreign rates of exchange in London for cable transfer on the centres and dates indicated, compare as follows:—

Par.	—	—	Jan. 20	Jan. 24	Jan. 27	Feb. 3
4.886	New York	Dols. to £	4.85⅜	4.85 7/16	4.85 7/16	4.85 1/32
4.866	Montreal ..	Dols. to £	4.86¼	4.86¼	4.85 15/16	4.85 15/16
25.225	Paris	Frcs. to £	122.17	122.50	122.87	123.25
35.000	Brussels ..	Bels. to £	34.90	34.91	34.88	34.88
25.225	Rome	Lire to £	112.13	113.00	112.50	113.37
12.107	Amsterdam	Florin to £	12.13⅜	12.14⅛	12.14	12.13½
12.107	Batavia ..	Gul. to £	12.10½	12.11	12.11	12.11
18.159	Stockholm	Kron. to £	18.18	18.19	18.18	18.18
18.159	Oslo	Kron. to £	18.03	19.02½	18.93	18.81
18.159	Copenhagen	Kron. to £	18.21	18.21	18.21	18.20
20.43	Berlin	Gmks. to £	20.46	20.47	20.47	20.46
24	Calcutta ..	Pen. to rup.	18 1/32	18 1/16	18 1/16	17 31/32
24.58	Yokohama	Pen. to yen.	24⅛	24⅛	23 15/16	24 1/16
*	Hongkong	Pen to dol.	24½	24⅝	24½	25½

* Par depends on rise and fall in price of Silver.

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A Certain Seller

CALCIMO

THE ORIGINAL COLD WATER KALSOMINE

Wholesale Distributors for Victoria:

BROOKS, ROBINSON & Co. Ltd.

59-65 Elizabeth Street, Melbourne

Editorial

Fewer Working Hours.

One may have a good deal of sympathy with the forty-four hours working week as an ideal, and yet entertain grave doubts regarding its practical application to Australia at the present time. Who is going to pay for the four hours thus reft from industry, and what will be the effect of their loss? These are pertinent questions.

As we understand it, Henry Ford's five-day week proposal rests on the assumption that his employees can do, or can be induced to do, as much work in five days as they have been doing in six, the sixth being the last day of the week which only counts for half a day industrially. We shall be much surprised to learn that practical experience justifies this hope. In the Ford factories, as Ford himself shows, the workpeople have been paid by results for years, and the "speeding up" possibilities of such a system are not inexhaustible. But assuming the soundness of Mr. Ford's view, this quicker pace is going to bear heavily on many of his workers. For, as every executive who has had to do with men and women knows very well, one person is quicker in movement than another, and to expect the same from both is unnatural to say the least of it. The Hebrew scriptures forbade the association for pulling purposes of beasts of different species, which, remembering the "humanity" of Old Testament legislation, is probably based on difference of pace. "Thou shalt not plow with an ox and an ass together" (Deut. 22: 10). A strong, impetuous youth, a restless young devil as he might have been described, once joined the British military forces in India. Thence word came before long to his native Scotland that his company had been captured by one of the hill tribes and marched off in fetters, two and two. His mother cried for a while after hearing the sad news and then, drying her tears, she said "God help the puir callant that's chained ta oor Jamie." Exactly. The effect upon the other fellow has to be considered.

Whatever it may be elsewhere, any suggestion of "making up" by more speed for less time seems to have been abandoned in Australia so far as the forty-four hours week proposals go. This plea was advanced at one time in certain quarters, but with discussion and experience—the thing has been tested in New South Wales and elsewhere—less and less has been heard of any such set-off. And this makes all the difference. Henry Ford, if we understand his position aright, does not stand to lose anything or increase his manufacturing costs. Under the new order, as under the old, he pays by results, and the operative who in forty hours fails to maintain the output of forty-four hours is himself the chief sufferer. With us, however, the claim resolves itself into this, that for a smaller output no smaller wage shall be paid. Production may be decreased, and will in all probability to the extent of a full twelfth, but not remuneration. In other words, the cost of this change is to be borne by the employer, who will pass it on with as little delay as possible to those for whom he in turn works. What else can he do? Because of the introduction of the forty-four hours week the Sydney Harbour bridge is costing more than was estimated, and as the contractors are protected against the adverse effects of any change caused by official action, the added cost falls on the Government (that is to say, the people) of New South Wales. What the addition will amount to has yet to appear, but that it will be considerable no one doubts for a moment. In this case the firm concerned are able to "pass on" the increase with a minimum of trouble. But with others it may be otherwise. What of those contractors who were not safeguarded in a similar way? What of manufacturers at Newcastle and elsewhere who even on a forty-eight hours week basis were feeling severely the competition of countries with longer hours and lower costs? Ultimately these manufacturers must either recover the increase or slacken off to the injury of labour as well as of capital. Politicians, as it seems to us, are adding to the burden of industry without much regard to the question whether industry can stand up to it or where the thing is going to end. While giving with the one hand they are taking with the other. For a workman to have his hours of labour reduced by four every week will prove a doubtful blessing if he not only has to pay more for the products of other men's labour but finds his chances of employment restricted. It seems to us a question of whether, as things are, Australia can afford the luxury of a shorter week.

A Remarkable Proposal.

In Sydney the Harbour Trust Commissioners speak of demolishing the Pyrmont Bridge, erected a matter of twenty-five years ago at a cost of many thousands of pounds. This is in connection with a scheme of reclamation and re-arrangement which they have in hand. A roadway 100 ft. wide is to be carried round the head of Darling Harbour, which the bridge in question spans, and, taken in conjunction with other facts and factors in the situation the commissioners urge that the use of the bridge will dwindle as the years pass, and its maintenance become an economic impossibility. For a large proportion of the traffic now using the bridge, it is said, the new roadway will form a more direct route. This new road, by way of Bathurst-street, moreover, will offer a much

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easier grade than the present road by way of Market-street, and will not be subject to interruption by the opening of the bridge for the passage of vessels as at present.

All this may be true, and no doubt the matter will receive every consideration before anything is done. But we are not surprised that the municipalities concerned are expressing "indignation" and lodging protests against any such proposal. To speak of removing a comparatively new bridge in the face of a growing population seems to us most extraordinary. Only that the suggestion is made by a responsible body like the harbour commissioners would we take any notice of it. Elsewhere, the world over, means of cross-water carriage are being increased by the building of more bridges or the digging of more tunnels. It is so in London and New York and other cities that might be mentioned. Traffic grows with the population, and means of handling it have to be found. If the Sydney of the future can get along without the Pyrmont Bridge, as the commissioners hold, one can only conclude that a serious blunder was made by those who spent so much money on it a short twenty-five years ago.

Electrical Notes from Melbourne

By F. A. B. (58/200).

Christmas proved a very busy period for electrical houses, both wholesale and retail. It went to prove that not only are people more intent on giving useful gifts than previously, but that many more homes must now be using electricity.

This is brought about by the fact that the State Electricity Commission are extending their mains to many areas, which otherwise would not have electricity unless, of course, the dwellers were able to afford a small home-lighting plant of their own.

After the completion of the harvest is the time when the farmer makes up his mind what improvements he will have. It may be a motor car, a new wagon, a lighting plant, a new windmill, or one of a dozen other things, all for the betterment of his own lot and that of his family. Electrical houses selling home lighting plants, have been preparing for this period, and expect business to be very successful. Many farmers are well able to buy these plants now, as small models, suitable for up to twenty lights, are well below £100 in cost.

In a large number of towns are electric supply stations. Of the shops within the supply area one would expect to find 100 per cent. lighted by electricity, but who would expect from 80 to 90 per cent. to be lighted, amongst the houses? This is the case in an electrical area in Victoria, and business amongst retailers there during the Christmas season was very brisk.

One retailer sold a large number of vacuum-cleaners—an appliance which is now regarded as a necessity in all homes, if not for carpets, for the cleaning of upholstering, etc. It is a good line to carry in stock.

The hot spell was the best advertisement for electric refrigerators to date. It brought many inquiries to stores distributing them. The trouble is when the hot weather causes the sale, the purchaser requires immediate installation, which from the dealer's standpoint may be difficult if not impossible.

The Theory of the Captive Customers.

(From "Hardware Age").

Our scientists have discovered that the atom is not the indivisible particle of matter we have so long thought it to be. It is, in reality, nothing short of a whole solar system in itself, with a sun-neucleus at the centre and with satellite-electrons revolving around it at incomprehensible speed, just as the planets do around our sun. As a matter of fact, the relation of the diameter of such a nucleus or proton, as it is called, and the diameters of the orbits of its satellite-electrons is, in a sense, proportionate to those of our sun and of its planets.

And now comes a brand new and unique theory, namely, that light waves have their beginnings in such atomic structures and are caused by the jumping of such satellite-electrons at enormous speed from an orbit around one atom to an orbit around another. Some idea of the celerity they attain may be had from the fact that the electrons of hydrogen, one of the ninety-two elements, rotate around its proton at an estimated speed of 1400 miles a second.

New stuff? It certainly is to the average reader but, in one respect at least, it is by no means wholly new to the average dealer. He has witnessed, times without number, the speed with which the consumer can jump from one dealer to another in the same line, from one competitive orbit to another, so to speak; and is it any wonder that he does not raise his eyes as readily in wonder at this scientific information. What the dealer, who is suffering from observing too much consumer orbit-jumping of the type explained, wants most to hear are ways and means of increasing his own "protonic" attraction so that he may, with certainty, hold his customer-electrons trictly within his own orbit—yes, and perhaps prove so strong that he can draw into his solar system, and there hold, no inconsiderable number of customer-electrons from other systems.

The store-to-store jumping which unknown and unadvertised goods suggest is great. Their qualities tend to be inconstant. There is not the incentive for them to remain standardised. On the other hand, there is every incentive for advertised goods to remain at the same or to advance to better standard quality, since the very nature of advertising is such that it necessitates that goods be kept up to a standard or that advertising will defeat its own purposes. Remember the theory of the captive-customers held by means of advertised goods. It will not hurt your business and sales one little bit.

Who Shall Invent Either?

The following list of "Things Wanted" was written out by Sir William Bull, an English M.P., and given to the Institute of Patentees:—

(1) Electric lights that do not emit heat.

(2) Silverware that will not tarnish.

(3) A flexible but unbreakable thread for stringing pearls.

(4) A way to curl hair without heat.

(5) How to prevent woollen goods from shrinking.

(6) A quicker way of removing old paint.

(7) A dandelion exterminator.

(8) Flexible glass.

(9) A fireplace that doesn't waste heat.

(10) A smooth road surface that isn't slippery in wet weather.

(11) An electric table lamp with a storage battery inside, without a cord.

(12) Typewriter ink that can be erased without smudging.

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Correspondence

For this column we welcome contributions on any matter of trade concern. Letters may be published anonymously, but in every case the name and address of the writer must be disclosed to the Editor. We do not necessarily indorse the opinions expressed by any correspondent.

Silver-Plated Porcelain and Glassware.

To the Editor, "Hardware and Machinery."

Dear Sir,—We notice in your issue of October 6, a letter from Mr. Albert Adams, 277 Clarence-street, Sydney, under date September 17, 1926, in which the writer states that the process mentioned by us as being a new process was developed, and he believed, patented by Mr. Gibbs, of Birmingham, in 1908 or 1909.

In answer thereto, we would like to point out that the original process of depositing in the form of filigree and tracery work of precious metal on to glass and china was originally discovered some forty years ago by one of our employees, and that the goods sent out to Australia by Mr. Gibbs, of Birmingham, were the actual products of this particular employee.

This, of course, we feel is surely borne out by Mr. Adams, when he states that he has never been able to discover why Mr. Gibbs did not follow up the "manufacture."

We have never claimed that the process above referred to was something new, but we have claimed, and do claim, that our process of fusing silver or other metals to an inner body of porcelain or china, as exemplified in our tea sets, vegetable dishes, etc., is an entirely new process, and in actual fact was discovered by us only so short a time ago as July, 1925.

Mr. Adams's comments, therefore, in our opinion, fall to the ground, and what we claim we surely are entitled to.—Yours etc.,

Eldona Mfg. Co. Ltd.,
F. A. Donson.

40 Summer-row, Birmingham.
November 26, 1926.

Agency Connections.

To the Editor, "Hardware and Machinery."

Dear Sir,—We find very often that we are anxious to ascertain the Australian agents for certain English and foreign manufacturers covering hardware, china and glass, and it occurred to us that it would be an interesting page of reference if you could devote the requisite number of pages in your journal covering this information under the heading of "Alphabetical Manufacturers' Agents' Directory."

The first column would give the manufacturers and opposite each manufacturer would be the Australian agents' name and address. We think that this could be made profitable so far as the journal is concerned by making a nominal charge per issue or annually of 1/- for the space, and we believe that there would not be a manufacturers' agent who would care to be left out of that particular list or directory, and it would furthermore increase the use of the journal itself as a directory in that form.

We believe that a circular to all Australian representatives of English and foreign manufacturers suggesting the opening of such a directory in the pages of your journal would bring forth practically the whole of the trade under those headings.

We would suggest that they should be classified under two headings, namely that of general hardware firms and china, glass and earthenware manufacturers.

We pass along the suggestion for what it is worth, and we have no doubt that you will go into the question of its merits and deal with the matter from your standpoint.—Yours, etc.

Harris & Marsh Pty. Ltd.
F. Harris.

75-77 Liverpool-street, Hobart, Tasmania.
January 7, 1927.

[In our "Business Handbook and Diary" we already provide such a list, confining our efforts, however, to those connections with manufacturers overseas which are represented in the advertising pages of this annual volume. The larger enterprise suggested by our correspondents presents certain practical difficulties which it may be impossible to overcome. But we welcome the suggestion most heartily, all the same, and shall give it careful consideration.—Ed.]

Turpentine—Vegetable and Mineral.

To the Editor "Hardware and Machinery."

Dear Sir,—Referring to the letter of "H.A.W." in your last issue, I would like to point out that quite recently the Australian Commonwealth Engineering Standards Association issued tentative or provisional standards for turpentine and mineral turpentine. These were as follows:—

Turpentine.

1. This specification refers to Turpentine distilled from Pine Oleo-resins and from resinous wood by steam or destructive distillation. The turpentine shall be genuine, clear, of characteristic odour and free from colour, suspended matter and water.

2. The specific gravity at 15.5° C. (60° F.) shall not be less than 0.862 and not more than 0.875 when compared with water at the same temperature.

3. The refractive index for the D line at a temperature of 20° C. (68° F.) shall be not less than 1.460 and not more than 1.4780.

4. The distillation of 100 c.cm. of the material in the distillation apparatus, described under Standard Methods of Testing, shall have an initial boiling point at 760 mm. (29.291 inch) pressure of:
not less than 150° C. (302° F.) and
not more than 160° C. (320° F.) and shall yield
not less than 95 c.cm. below 170° C. (338° F.)
at 760 mm. (29.921 inch) pressure.

5. The residue obtained as described under Standard Methods of Testing shall not exceed 2% by weight.

6. The amount of residue left after polymerization shall not exceed 10 per cent. by volume, and its refractive index shall be not less than 1.500 at 20° C. (68° F.). The polymerization test shall be carried out in the manner described under Standard Methods of Testing.

7. The flash point shall be not less than 90° F. (32.2° C.) when tested in an Abel closed cup tester.

Mineral Turpentine.

1. This specification applies only to petroleum distillates known as mineral (or white) Spirit, for use in thinning Paints and Varnishes.

2. The material shall be wholly a petroleum product. It shall be water white, clear, free from water and visible impurities and from objectionable odour.

3. The distillation of 100 c.cm. of the material in the distillation apparatus as described under Standard Methods of Testing shall have an initial boiling point not below 140° C. (284° F.), and shall yield:

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Not more than 10 c.cm. below 150° C. (302° F.).
Not less than 80 c.cm. below 190° C. (374° F.).
Not less than 90 c.cm. below 200° C. (392° F.).
Not less than 95 c.cm. below 210° C. (410° F.).

4. (a) The amount of residue obtained by evaporation over a water bath as described under Standard Methods of Testing shall not exceed 0.2%.

(b) The residue obtained by evaporation at room temperature for a period of 24 hours, as described under Standard Methods of Testing shall not exceed 0.5%.

5. The material shall evaporate from filter paper without leaving any grease spot or mark when tested in the manner described under Standard Methods of Testing.

6. The material, when tested by the method given in the Standard Methods of Testing shall be neutral to methyl orange.

7. The material shall be free from objectionable sulphur compounds.

8. The flash point shall be not less than 86° F. (30° C.) when tested in an Abel closed cup tester.

As previously stated, these are provisional specifications, and any suggested amendments will be considered by the association before the thing is fixed. Even so, they meet, I think, some of the questions raised by your correspondent.—Yours etc.,

P. Palustris (33/200).

Melbourne, Jan. 19, 1926.

Inquiry Column

TRADE INQUIRIES

During the month we have supplied answers to the inquiries indicated below. Firms with whom we have not already communicated who hold any agency connection with the firms, or handle any of the lines mentioned in this section, are invited to furnish us with particulars so that our lists may be complete.

Information Supplied.

Cotton Mop Yarns.—Name and address of manufacturer supplied.

Round Tang Files.—Name and address of firm holding stocks supplied.

Douglas Gas Water Heater.—Name and address of manufacturers supplied.

J. E. Bleckmann, Solingen, Germany.—Name and address of agent supplied.

Fr. Eduard Engels & Co., Germany—Name and address of agents supplied.

Oliver's Ploughs and Shares.—Name and address of N.S.W. agents supplied.

Spades and Shovels.—Names and addresses of makers in Melbourne supplied.

Mouldboards for Ploughs.—Name and address of manufacturers in Melbourne supplied.

William Cashmore, Birmingham (shot guns).—Name and address of agent supplied.

Beech and Silky Oak.—Names and addresses of firms in Sydney holding stocks supplied.

Brass Bottoms for Milk Strainers.—Names and addresses of firms holding stocks supplied.

Utica Drop Forge & Tool Co., Utica, N.Y., U.S.A.—Name and address of agent supplied.

John Oakey & Sons Ltd., London (glasspaper, etc.).—Name and address of agents supplied.

"Optimus" Burning-Off Lamp.—Names and addresses of manufacturers and agents supplied.

The Auto Vacuum Freezer Co., New York City, U.S.A.—Name and address of agents supplied.

Genevoise Jib Boring Machine.—Names and addresses of manufacturers and agents supplied.

Stuart & Son Ltd., Stourbridge, Eng. (crystal glassware).—Name and address of agent supplied.

Perforated Tin Bottoms for round milk strainers.—Name and address of firm holding stocks supplied.

Purcell Bros., Birmingham (electro-plated ware).—Name and address of firm holding stocks supplied.

Rosene Crystals (a dyeing material dissolved in water).—Name and address of firm holding stocks supplied.

Turner, Day & Woolworth Handle Co., Louisville, Ky., U.S.A. (tool handles).—Name and address of agent supplied.

Stationers' Sundries, such as pencils, penholders, and so on.—Names and addresses of manufacturers' agents supplied.

"Solignum" wood preservative and stain, manufactured by Major & Co. Ltd., of London.—Name and address of agents supplied.

"Grip-fix" paste for office use, etc., manufactured by the V.K. Rotary Co. Ltd., London.—Name and address of firm in Melbourne holding stocks supplied.

Information Wanted.

Rieser's Seccateurs—Name and address of agent wanted.

Arnold E. Williams, Birmingham (electro-plated ware).—Name and address of agent wanted.

Pifco Ltd., Nottingham, England (incandescent lamps, etc.).—Name and address of agent wanted.

Darwins Ltd., Sheffield (razor blades).—Name and address of Australian representative wanted.

Perforated Tin Bottoms for round milk strainers. Name and address of firm holding stocks wanted.

Walker Bros. Ltd., Walsall (Galvanised and japanned hollowware, etc.).—Name and address of agent wanted.

LEGAL INQUIRIES

Liability of Shareholders.

What liability attaches (a) to shareholders in registered companies; and (b) to unrecognised or unregistered partners in a firm? (c) Does the loan of capital constitute partnership?

A.—(a) Shareholders in a registered company are liable for the full amount of the shares unless it is a "no liability" company; (b) shareholders in unregistered companies which are practically partnerships are each liable for all the debts of the partnership; (c) the loan of capital does not constitute a partnership.

Association Prices.

An association arranges with a manufacturer for the latter to supply goods only to persons selling his lines at a certain minimum price. A trader not connected with the association cuts the price below the minimum. The manufacturer upon being informed of this by an officer of the association, and assuring himself of its truth, refuses to sell further to the cutter. Is this action legal as regards both parties—the manufacturer and the association?

A.—We do not think that any action could be brought by the trader against either the manufacturer or the association.

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Sundry Credits

By J. Knibb.

"You treat that shopkeeper very respectfully," observed a friend to the commercial traveller. "Yes," was the reply. "He is one of our early settlers." "Early settlers?" said his friend in amazement. "How can that be when he is not over thirty years of age?" "You don't understand," came the reply, "He pays his accounts in seven days." Very good! The "early settler" is not necessarily an "old identity"—a character canonized by Australian journalism—nor is the "old identity" always an early settler in the financial sense. From the settlement standpoint, indeed, the "old identity" may be an old humbug.

Early Settlers.

* * * *

A civic performance in which I found myself an unwilling actor deserves to be placed on record for the benefit of posterity. Finding that they had overcharged me for a particular service a certain city council sent me by post a letter and receipt form. The letter stated that on my completing and returning the form of acknowledgment a cheque for the amount owing would be posted to me. I had to certify that I had received the refund and get a second person to sign the document not only in witness of my signature but of the paying of the money. Two of us, that is to say, were invited and expected to tell lies over the business. As a matter of fact, I took the entire responsibility upon myself by not letting the other know that any payment was involved. A duty stamp having been attached and cancelled according to instructions, the form was recommitted to the post.

Municipal Methods—

* * * *

Now what do you think of that? I don't mean of my culpability either from the business or the ethical standpoint, but of the position and prospects of those who led me astray. Where do you think these municipal authorities are going to end up? I yielded to their solicitations, it is true, but it went against the grain I can assure you. My repugnance to the transaction was not due to any fear of the money not reaching me, although that was a possibility, surely. With my receipt safely pigeon-holed an evil-minded person in the collector's office might have succeeded in misappropriating the cheque meant for me. It was the moralities, however, that made me hesitate. To formally and solemnly declare that I had received what as a fact only reached me four days later, did offence to my conscience. What I feel is that no man, however placed, should ask another to do such a thing. What do you think?

—and Morality.

* * * *

No one did more in the practical development of what are called high explosives than Alfred Nobel (1833-1896), who instituted by his will the various Nobel prizes. While he was still young nitro-glycerin was discovered by Sobrero and nitro-cellulose or guncotton by Schonbein, both in the year 1846. But Nobel it was more than any other who brought these two materials together for blasting purposes. By an accident he stumbled, in 1864, upon the manufacture of dynamite, a combination of nitro-glycerin and infusorial earth or kieselguhr. While it absorbed the viscous explosive and made its safe handling a possibility, the earthy absorbent, of course, is inert, and the use of a carrier itself explosive was obviously going to increase the rending power of a charge of equal weight. That is what we have to-day in gelignite and other compounds where nitro-glycerin is associated with guncotton and other materials.

High Explosives.

* * * *

The people of the Mother State are not satisfied with the name borne by their wide-spreading territory. "New South Wales," they say, is cumbrous and inapt and misleading. Their country is not much like Wales, as Captain Cook or somebody else felt a part of it to be, and it carries as few "Taffies" to the square mile as any other part of Australia. So they are casting round for a new and better name. The contraction or acrostic "Nesowa" has been suggested, and so also the botanical names "Boronia" and "Waratah." Why not "Langtonia," good people, if change you must? If the island State of the Commonwealth was named Tasmania after a Dutch navigator for whom nobody cares a rap why should not a beloved statesman have his name perpetuated in this way? Surely the man who put a tax on newspapers deserves well of his country. The proposal, I feel sure, needs only to be offered to find instant adoption. My fee is ten guineas.

What's in a Name?

* * * *

Not for several years has Melbourne experienced such a succession of hot days as fell to our lot during the first half of January. Phew! It was sultry! Stiff collars were abandoned by the male half of the population and ice-cream was the favourite prescription for the whole household. On the front lawn, with the gramophone making melody through the wired window and the moon looking down on the undress performance, it helped you to face another day. The soft drinks people must have made a tidy sum out of it, and even hardware dealers were called upon for butter coolers and ice chests and food safes of all kinds. "It's an ill wind that blaws naebody guid," says the Scottish proverb. The sufferings of Melbourne were light, however, compared with those of fair Adelaide. She, poor lady, had it several degrees hotter, and the tears of distress ran down her face. Fortunately she uses no powder, and with the return to normalcy—an American word of whose possession I am rather proud—she is looking as beautiful as ever.

The Heat Wave.

* * * *

Among the busiest of Glaswegian thoroughfares is Sauchiehall-street. The visitor must be able to pronounce the name properly before he can look for much respect in Glasgow or enjoy the freedom of the city. And the proper way is the Scottish or guttural way, the way you can imagine Bailie Nicol Jarvie uttering it. Ma conscience, yes! Some time ago it appears the shopkeepers of Sauchiehall-street formed themselves into an association with a view to making their beloved thoroughfare still better known and still more profitable. Whether Argyle-street was offering greater attractions does not appear. Be that as it may, Sauchiehall-street got to work—busked itself out by day and brightened itself up by night. Joint advertisements were inserted in the daily papers, and joint action taken in various directions. Reviewing the first year's work, the secretary said the movement had been of distinct benefit to the street and the city. Nae doot, nae doot, says ma faither the deacon, but man St. Mungo has nothing on us! We've had that sort of thing in Australia for years.

Street Consciousness.

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News from Abroad

Iron Ore in Italy.

According to a cablegram from Leghorn on January 23, a deposit of iron ore has been discovered at Tampura Pass, in the central Appenines, which is declared to contain 68 per cent. of metal, compared with 40 per cent. in the other European mines. It is hoped to secure a daily output of 300 tons of pure metal, thus enabling Italy to discard imports.

Fifty Not Out.

Connected with the Supplee-Biddle Hardware Co., of Philadelphia, Pa., U.S.A., is a Half-Century Club, membership of which is confined to those who have been in the service for a full fifty years. At latest reports the membership comprises six "old-timers," the last of whom only qualified within recent months. Reminiscence is the order of the day when the club meets, and a very friendly spirit prevails among the members. Long service is the rule with the firm, scores of whose employers have passed the twenty-five years' mark.

An Aluminium Syndicate.

According to the "Manchester Guardian Commercial," another international selling organisation has just been created. The principal European aluminium producers, excluding a part of Norway, have made an agreement to regulate prices and processes. The agreement covers nearly half the world production, the remainder being controlled by an American group, which also has interests in part of the Norwegian output. Apparently the European producers intend to stabilise the price round about £105 per ton, and it is believed that each group is to be given a monopoly in its home market.

Death of Sir Alfred Haslam.

The death is announced from London of Sir Alfred Haslam, principal proprietor of the Haslam Foundry and Engineering Co., Ltd., Derby. Sir Alfred was born in 1844. Trained as an engineer, he was the first to invent, manufacture, and fit up Haslam's patent refrigerating plant in the colonies, and to fit up the machinery and cold chambers on board ship and on shore, which established an important business in conveying perishable food from the colonies to Great Britain. He was knighted in 1891, and donated to the nation the statues of Queen Victoria, erected in London, Newcastle-under-Lyme, and Derby.

Chemical Steel Making Process.

An entirely new method of making steel is reported to have been discovered in the laboratories of the German Dye Trust, which has taken out a patent for the invention. It is claimed that iron can, by a chemical process, be turned into steel, which is considerably harder and, at the same time, more elastic than the finest steel made by the usual methods of smelting. The new invention, it is stated, produces steels of the finest quality with none of those impurities and defects which are unavoidable in the smelting process. The cost of production is also declared to be cheaper, and hopes are expressed that with this new steel German industry will be able to obtain a dominant position on the international markets.

World's Shipbuilding.

In its summary of the world's shipbuilding for 1926 Lloyd's Register shows that 600 vessels, with a tonnage of 1,674,000 were launched throughout the world. Of these 639,000 tons were built in Great Britain and Ireland. There was a world-wide decrease compared with 1925 of 518,000 tons, and a decrease for Great Britain and Ireland of 445,000 tons.

Compared with the record year of 1919, the world-wide decrease was nearly 5,500,000 tons. The world's launchings included 22 vessels with a tonnage exceeding 15,000. The largest vessel was the turbine vessel Ile de France, 43,000 tons.

The tonnage afloat in June, 1926, was 59,117,000 compared with 42,514,000 tons in June, 1914. The tonnage of tankers is now 5,665,000, compared with 1,479,000 in 1914, and motor ships 3,500,000, compared with 234,000 in 1914, while the tonnage of steamers fitted with oil fuel is 18,250,000, compared with 1,310,000 in 1914.

The British Industries Fair.

Striking evidence of British efforts to capture export trade is contained in the latest official announcement of the progress being made in the preparations for the British Industries Fair, which will be held simultaneously in London and Birmingham from February 21st to March 4th. All the available space in the London section has already been reserved by manufacturers, and in spite of the considerable extensions made to the accommodation at Castle Bromwich since the last Fair, only a very few more applications from intending exhibitors can be considered at Birmingham. In view of the industrial troubles with which British manufacturers have been faced during the past few months that is a notably satisfactory state of affairs, and will convince Dominion and foreign buyers contemplating a visit that a great "spring offensive" in British trade has been tacitly agreed upon. There are signs, as well, that not only will novelties and new lines be offered in abundance, but that prices will be at a competitive level.—"The British Export Gazette," December, 1926.

Copper Combine.

A gigantic world copper combine representing hundreds of millions of pounds in Europe and America, has been created, and is now looking towards the Congo and Northern Rhodesia where the great copper mines of Africa are situated. The new combine, which has been named the Copper Exporters Incorporated, has its headquarters in America. It will wield enormous influence. More than 90 per cent. of the great copper producers of America have joined the organisation, together with the British Metal Corporation, the gigantic Tanganyika-Zambesia-Union Miniere group, the Cerro de Pasca Copper Company, and the Rio Tinto Company, which, a few months ago, was dead against combinations. Every copper producing firm in existence is represented, including British, German, French, Belgian, United States and South American companies. More than £50,000,000 of British capital is concerned in the "ring," while American and European interests represent many times that amount. At the lowest estimate its members control £200,000,000 of capital. The combine states that it does not wish to force prices up, but only to stabilise them. Its members, however, are pledged to the control of output. If copper is cheap the supply will be held back until prices rise.—"Industrial and Commercial." South Africa.

One of the claims made for Thomas Jefferson is that he invented the swivel chair.

In the British Museum is an ancient stool with four legs, the seat of which revolves on a bronze swivel.

A London paper suggests the possibility of an Egyptian roll top desk coming to light in the near future.

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Novelties and New Samples

New Mop Fitting.

An ingenious mop fitting has been patented in the Commonwealth by Mr. R. Williams, a recent arrival from England, now living at 31 York-street, St. Kilda, Melbourne. The new mop holder, which will be given a name, is a saver of time and labour. Folded "round" till the ends meet, or doubled, the fabric is readily fitted into the holder and is held there securely by pins which are out of sight and danger when the mop is assembled. As readily can the fabric be removed and opened out for washing and drying. The pins take the place of the bolts and nuts in earlier models and constitute the main feature of the invention. Women dislike the fitting on and tightening up of wing nuts, and there is often trouble through the stripping of the thread or the losing of the nut. When detached the fabric can be safely passed through the washer or wringer, because it carries no metal attachments to do the machine injury. The corners of the holder are cushioned to avoid damage.

Stamped Metal Goods.

Metal Products Pty. Ltd., of Little Bedford-street, Collingwood, Melbourne, have recently gone into the production of many useful stampings of interest to the hardware trade. The firm are also die sinkers, and manufacturers of press-work tools, as well as general electro-platers, and are therefore able to handle the work from the raw material to the finishing processes.

Quite a large range of samples is now displayed, covering various designs and finishes in cabinet handles, drawer pulls, sash lifts and similar articles. Among other samples viewed were a good selection of card frames as used for filing cabinets, castors, roller blind brackets, brass mirror movements, and many stamped parts for wireless purposes. Several patterns of moulding hooks were of unusual type, and should attract the attention of the trade, while the various designs of pulls and handles show excellent workmanship. For the boot and other trades a collection of buckles of all kinds was exhibited which will doubtless meet with a good demand. A feature of all these lines is the care taken in the finishing processes. Every part is smooth and accurately fitted, and the various antique coppers and silvers are well executed in every way.

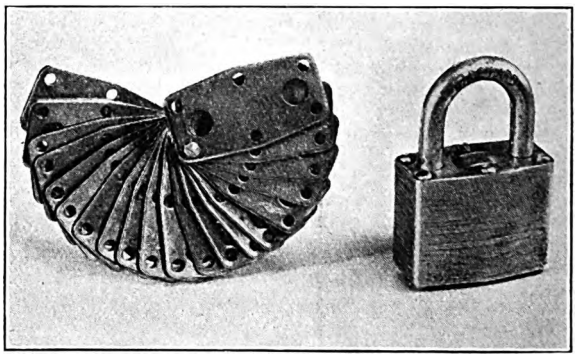
In addition to these products, the company specialise in the supply of dies and tools to the trade generally, as well as all classes of electro-plating.

New Padlocks.

With the object of eliminating all possible damage by rust, forcing and even sawing by burglars as applying to locks in general, The Master Lock Co., Milwaukee, Wis., U.S.A., claim that the new laminated padlock which they are introducing through their Australian representative, Mr. C. E. Mayo, 209a Castlereagh-street, Sydney, is the ideal article.

Constructed of twenty separate plates of cold-rolled steel rivetted together seven times under fifty-ton hydraulic pressure, the makers state, that such processing, necessary in the making of this padlock, ultimately ensures a perfect product. The new cadmium-electro process is responsible for the anti-corrosive quality of the metal. Another feature is that the padlocks can be obtained with or without case-hardened shackles. The case of these locks is 1¾ in., but the size of the shackles are ⅞ in., 1½, 2 and 2½ in. Three keys are supplied with the case-hardened variety and two with the ordinary steel-shackled locks.

Mr. Mayo is also displaying on behalf of the same firm a permanently rust-proof laminated hasp lock.



This is really a combination of the padlock previously referred to and a heavy steel safety hasp. To prevent it from being stolen or mislaid the padlock is fixed to the staple by a portion of the shackle. No. 250 and No. 350, as they are listed, are comparatively light, weighing 13 lb. per dozen. They are procurable with or without casehardened shackles and staples.

Oster Innovations.

Through their Australian and New Zealand representative, Mr. Charles Wright, 16 Hunter-street, Sydney, the Oster Mfg. Co., Cleveland, Ohio, U.S.A., are introducing a number of new tools.

The Oster "Bull-Pup" die stocks are a development in stocks and dies made expressly for screwing pipe. Built on the principle of the solid die, the "Oster" has the advantage of adjustment for over and under-size threads, with a cutting range from ¼ to 1 in. The dies, bushings and other parts are interchangeable, the dies being ground with a new rake and a long lead to effect easy start and cutting. They are made in three styles, Nos. 11 and 11a being known as three-way tools, No. 01a one-way outfit without ratchet, while 01R is a one-way outfit with ratchet.

The next innovation, the Oster receding die stocks, are designed to overcome the increased difficulty of screwing pipe of more recent manufacture. The dies are only half the usual width with a consequent reduction of friction of about 50 per cent., and in operation they automatiaclly recede as the thread is being cut, so that the work really becomes easier as the thread progresses. It is noteworthy that the cut of thread produced is the British standard taper, also that the lead is long, and that while the first few teeth execute the roughing, the others effect the finishing. To increase the life of the leader screw it is protected by a patented chip shield, and by rotating the die head to and fro, the dies automatically expand or contract, allowing a deep or shallow thread to be cut as desired. These tools are made both with and without ratchet. Nos. 42C and 42RC, with and without ratchets respectively, have a screwing range

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from 1 to 2 in., while No. 44 is from 2½ to 4 in., the latter being geared to effect more easy cutting of the larger size pipe.

Another new line is the Oster pipe cutter, made with a single cut of wheel and two rollers for use where there is sufficient space to turn the cutter round the pipe. It is reinforced in parts to withstand great strains, and is equally satisfactory when used by hand or power. This tool can be obtained in two sizes, namely, No. 1S with a cutting range from ⅛ up to 1 in., and No. 2S from ⅛ to 2 in.

The Oster "Power Boy" electric drive for handstocks and dies is a portable outfit weighing only 150 lb. complete with motor, and can be operated by connecting with the ordinary electric light or power socket. The motor is ½ h.p. universal, variable speed for 220 volts d.c. and 220 volts a.c., single phase and any number of cycles from 25 to 60. It is fitted with reversing snap switch and includes a No. 104 Oster "Bulldog" quick opening die stock with capacity ⅛ up to 2 in. pipe.

Cutlery and Tools.

Norman Baker & Longhurst, of 50 York-street, Sydney, are introducing on behalf of Christopher Johnson & Co., Sheffield, several innovations:—

A new line of popular price stainless cutlery, table and dessert knives, listed No. 1892, have been received favourably at the hands of buyers. The previous lowest priced line was No. 1891. A child's stainless knife, fork and spoon contained in a neat box with printed figure and nursery rhyme, is well spoken of, also a new system of putting up afternoon tea spoons and cake forks, half a dozen each in strong rack boxes. A new lino knife is supplied with an extra blade, the change being effected by a screw in the handle, while a bread knife is introduced with fine serrated edge, and is made with a slim blade. This, it is claimed, is more easily sharpened and will not cause crumbs when slicing bread, as the coarser serrated pattern is disposed to do. Each knife is put up in a neat carton.

Yet another innovation from this firm is a seven in one radio gadget designed for the use of the ex-



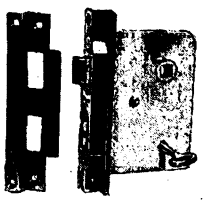
pert or amateur radio mechanic. This tool is constructed in the form of a pair of scissors, for which purpose it can be used, but the points are made for use as a universal spanner for all sizes of round or hexagon nuts as applied to radio work. The bevelled edge is specially sharpened for cutting rubber insulation, scraping enamel or cotton covering from wires, etc., is provided with a section for use as a wire cutter up to No. 14 gauge, has a file on back for sawing terminals, etc., and on each finger bow is a screw driver, always useful to a radio "fan." The gadget is made of specially hardened and tempered steel, and a provisional patent has been taken out for the design.

Sets of cutlery expressly for motorists and picnicking are put up in a compact folding case containing knife and fork, large and small spoon, and a novelty combination corkscrew, tin opener and "Crown" top bottle opener. These are offering in sets for two, four or six persons.

A new departure of W. B. Birkinshaw & Co. Ltd., Wolverhampton, is a range of hoes, which includes chipping, hammer head, grubbing, burr, breaking up planters, larry, etc. These tools are made of warranted best steel, and are well finished.

Reversible Rabbeted Lock.

Mr. J. Stratmann, of Brien-lane, Melbourne, is the patentee and maker of a reversible rabbeted mortise lock, an illustration of which is given herewith. It is made in brass throughout, the thickness of the case being 9-16 in. This lock can be very simply changed from left to right hand, or vice-versa, by first unscrewing the lock front, turning round and readjusting. The lock case is then unscrewed, and the latch bolt and follower turned over.



A new patented solid striking plate is now supplied which is designed to save much time to the carpenter in fitting.

Rabbit Traps.

Michaelis, Hallenstein & Co. Pty. Ltd., of 441-45 Lonsdale-street, Melbourne, advise full stocks of Lane's rabbit traps for the coming season.

Further improvements have been incorporated in the wire spring pattern trap, the spring being fixed so that it will not turn, and the jaws are of stronger material.

In the flat spring type also several changes have been made. New jaws and better material throughout, in addition to a new fixing of plate are among the improvements.

Lane's traps are packed in 12 dozen cases, and immediate delivery can be given by the firm.

Borrowings

"Happiness has no history," says Balzac. Similarly, the employee who handles his "job" seldom undergoes an unpleasant hour with the big boss.

Self-conceit is not the same thing as self-confidence. Nor are its effects the same on associates and acquaintances; for men instinctively mistrust the conceited person, just as they are ready to follow the lead of the truly confident.

Galvanic power applied to the nerve of a frog's leg produces energy 70,000 times greater than the original stimulus. Like the frog's leg we are all capable of an energy far greater than we have ever considered—once we apply the proper inspiration.

Don't think about your position as a "job." Realise that you are an important wheel in the big machine of business, and work for the gold that position will make possible rather than for the silver in your weekly pay envelope.

Mariners depend on their own efforts to bring them to harbour—not wholly or directly on the winds or the currents.

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Personal and Social

Change of Advertising Manager.

Mr. J. C. Ives, who for several years has managed the advertising department of the Australian General Electric Co. Ltd., Sydney, has relinquished that position to take charge of a new department. His successor is Mr. J. A. Cochrane.

An Honorary Commission.

Mr. S. Perry, proprietor of the Perry Engineering Co., Mile End (Adelaide) and Gawler, has been granted an honorary commission by the South Australian Government to inquire into and report upon conditions in the engineering industry of Great Britain and America.

New Office-Bearers.

At the council meeting of the Australian Association of British Manufacturers and their Representatives, N.S.W. Branch, held on January 20, Mr. C. E. Mayo (Corbett, Mayo Pty. Ltd.) was elected chairman for the ensuing year, and Mr. W. R. Caithness, of the British General Electric Co. Ltd., vice-chairman.

Retires from Business.

Retirement from business at the comparatively early age of 57, and virtually in robust health, becomes the good fortune of Mr. G. T. Savage, whose large and prosperous retail hardware business was purchased in January as a going concern by McPherson's Pty. Ltd.

A native of Birmingham, Mr. Savage came to Australia in 1890, and although scarcely having passed his 23rd year, he entered into busienss on his own account, or, as he prefers to put it, in partnership with his wife. This was in 1892 and, as might be supposed, the young couple had rather more ambition and energy to draw upon than capital. At that time also, New South Wales was experiencing the results of a great financial crisis, when banks were reconstructing, and building and similar societies going into bankruptcy or liquidation.



Mr. G. T. Savage

Related in his own way, Mr. G. T. Savage says that his first shop "was in Regent-street, Redfern, and largely through the energetic assistance of my wife, in its own small way, a very decided success, although profits were very small indeed. Wire nails on an average assorted of 10 gauge, were selling at 10/6 per cwt., cups and saucers of quite fair quality, retailed at threepence, a well made dipper at twopence to threepence, a 50 yard roll of wire netting, 24 in. by 2 in. by 19 gauge, at 4/9, a stoutly made millet broom for sixpence, and so on. It is obvious that with prices ruling like this and profits proportionately low, we had to keep the wages bill for assistance as small as possible. Consequently, for two or three years, my wife and I averaged a working week of something like 70 hours. However, a few years later the State's financial stringency relaxed and prices and profits became substantially better. After five or six years in Redfern, with increased capital and experience, I opened up in the city, which venture proved most successful, so after 34 happy and strenuous years —years in which hard work and enjoyment of life went hand in hand with my congenial partner—I may now sit back in comfort or stand aside to make way for the new generation.

"It is not my intention, however, to lead a life of quiet and laziness that to a man who has had an active career is but a form of slow suicide. I shall be kept busy looking after my sleeping interests in quite a number of concerns, manufacturing, pastoral and distributing companies which give a zest to the financial side of one's affairs, and I claim it a privilege to be an active member of the Council of the R.S.P.C.A., also a committeeman of the Church of England Homes and a member of the Anglican Synod. It would be poor gratitude on my part if I gave up my active life as an ironmonger without a word of thanks and appreciation for the hundreds of acts of kindness, of help and advice that I have received from the men employed in the various hardware houses of this city. Some cynics say that the tendency of business is to make its votaries hard and selfish. I differ with this because my 34 years of business life have been strewn and carpeted with kindnesses from those with whom it has been my happy lot to have had business associations, and so I leave the hardware trade a grateful and happy man."

Storekeeper's Golden Wedding.

Early in the month Mr. and Mrs. John Kingston, of Kingston, Tasmania, celebrated their golden wedding. Some twenty years ago Mr. Kingston bought a general store at Kingston now conducted by the firm J. Kingston & Son. Later on he built a large shop and dwelling at Kingston Beach, where he still resides, although he retired from business some little time ago. The guests included four sons, two daughters and twenty-four grand children. Each of the latter received a souvenir of the occasion. Mr. and Mrs. Kingston are highly esteemed in the district.

British Manufacturer in Australia.

Sir Hugh Poynter, of Baldwins Ltd., well known British manufacturers of steel, arrived in Sydney by the R.M.S. "Ormuz" early in January to take care of the Australian interests of that firm, and is located at the head office of Richard Johnson, Clapham & Morris Ltd., 28-30 O'Connell-street, Sydney. A first cousin to Mr. Stanley Baldwin, the British Prime Minister, Sir Hugh has been president of Baldwin's Canadian Steel Corporation for the past five years. He says that while the heavy steel industry in England has still far to go to reach its former position, light steel products are fast regaining that position, and the outlook is altogether more hopeful than for some time past.

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Parting Present.

Mr. H. Allerding, who was "town buying" for some time for George Russell Pty. Ltd., Melbourne, has severed his connection with that firm. Before he left his fellow employees presented him with a handsome wrist watch.

Complimentary Dinner.

Mr. J. C. McCallum, manager of the fertiliser and machinery departments of Gibbs, Bright & Co., Sydney, was given a complimentary dinner by the staff during the month. Mr. M. W. Ellis, president of the Hart-Parr Co., of Charles City, Iowa (U.S.A.), who arrived from America by the "Aorangi" on a tour of Australia, was present.

Farewell Gathering.

During the month Sir William Brunton, the ex-Lord Mayor of Melbourne, entertained the staff of his firm, Currie & Richards Pty. Ltd., to a social evening at the Masonic Hall. On behalf of the employees Mr. Sutton presented Lady Brunton with a travelling clock and Sir William with a camera. As the gifts suggest the host and hostess will soon be on their way to Great Britain in pursuance of an extended trip abroad.

Death in England.

News has been received of the death at his residence in Hertfordshire, England, of Mr. Herbert Ernest Scarfe, in his 57th year. A son of the late Mr. Charles Scarfe and a brother of Messrs. F. G. and A. A. Scarfe, he was educated in Adelaide and subsequently entered the office of Geo. P. Harris, Scarfe & Co., now Harris, Scarfe Ltd. Some twenty years ago he was transferred to London, and in middle life he left the business and retired into private life. Golf and gardening were his chief recreations.

Death of Mr. A. Hankinson.

The death of Mr. Alfred Hankinson on January 24 removes from commercial Sydney, and indeed from the Commonwealth, a widely known and highly respected business man. He was manager of the Australian branch of Richard Johnson, Clapham & Morris Ltd., steel manufacturers, of Manchester, which firm are Australian agents for Baldwins Ltd., noted for their "Phoenix Crown" galvanised sheets. A native of Manchester, the late Mr. Hankinson joined the firm at the age of eighteen years, and came to Australia in 1891 to establish the Australian branch.

For many years he was a member of the Royal Sydney Yacht Squadron.

Cable messages of condolence were received from Sir Charles Wright and Sir John Davies, of Baldwins Ltd., South Wales branch; from Mr. Herron, Mr. Wilcox and Mr. H. O. Airey, of the London staff of Baldwins Ltd., and from the Manchester staff of his own firm.

The cortege, which left the deceased gentleman's home, Waratah House, Bayswater-road, Darlinghurst, included Sir Hugh Poynter, representing Baldwins Ltd., Mr. Tom Ferris, of the Royal Sydney Yacht Squadron, and many other influential business and personal friends, including the whole of the staff of the firm's Sydney establishment.

A widow and one daughter are left behind.

Legion d'Honneur.

Mr. Joseph Chaleyer, of J. Chaleyer & Co. Pty Ltd., 510 Collins-street, Melbourne, who recently returned from an extended business trip to France, has been created a Chevalier of the Legion of Honour.

Lacquer Finish for Motor Cars.

Everything concerning automobiles has been constantly improved except the finish. Manufacturers held to the system founded during the carriage era because they did not have anything better. When they were convinced that the lacquer finish presented something superior in every way, they incorporated this into their production programme.

The Sherwin-Williams Co. were among the early experimenters in nitro-cellulose lacquers and enamels. They are now marketing a material known as "Opex," which is virtually liquid celluloid. The new finish is entirely different from the old. Whereas under the old method the slightest abrasion of the highly finished surface produced



scratches and blemishes which could never be effaced, the new process actually improves in lustre with continued use. It is even claimed that after a coating of dust and dirt it may be wiped clean with a soft cloth and show an even brighter surface. And more serious damage, such as dents, present no difficulties, for after straightening out the finish can be restored in a few days.

The spraying of paints and varnishes is rapidly superseding the hand-brushed method in all branches. It reduces costs, doing a better job in quicker time at less expense than could possibly be done by hand and brush.

George Russell Pty. Ltd., of 452 Flinders-street, Melbourne, are Victorian distributors of the Sherwin-Williams products, including lacquers, paints, and varnishes suitable for spraying. They are also handling the spraying plants made by the Decora Manufacturing Co., suited either for finishing motor bodies, or for any class of painting. The outfits are made in different patterns for different kinds of work, and are portable, easily operated, and economical in the use of materials. The firm are now demonstrating for those interested in the process of spraying, and the various types may be seen in operation.

No Class Barriers.

"When the British trade unionist meets the British employer, he starts with a prejudice arising from the fact that he belongs to a different social class; but when the American workman meets the American employer, it never occurs to him that there is any social difference, and, indeed, he can never dismiss from his mind the fact that the employer was probably a workman himself, and that the workman hopes in the ordinary course of events to become himself an employer. It is ten times as easy to pass from one social class to another in America as it is here; the barriers between the classes either do not exist at all or are so flimsy as to present few difficulties to those who would pass over them."—Sir Ernest Benn in "Confessions of a Capitalist."

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Interstate General News

One Building for Two.

The work of consolidating the firm's bulk stores in the new building recently purchased by Hawkes Bros. Pty. Ltd., Geelong, Victoria, has now been completed and two old stores have been disposed of. Already the great advantages of one central store are beginning to be realised.

New Stove Factory.

W. T. Carmichael Ltd., well-known makers of "Success" stoves, whose works are at Marrickville and showroom at 336 Pitt-street, Sydney, have acquired a large area of land at Auburn near the Parramatta-road, on which they intend to erect a large new factory for the manufacture of ovens, gas stoves, baths and coppers.

An Old Locomotive.

A relic of the first stage in the construction of the Dunedin and Port Chalmers railway, New Zealand, to wit the "Josephine" engine (Fairlie's patent) is to be placed on the reserve grounds of the Otago Early Settlers' Association, Dunedin. The "Josephine" was the first engine used on that railway, arriving at Port Chalmers in August, 1872. There the rolling stock was erected and the first train drawn over the line entered Dunedin a month later.

Prices of Explosives.

Owing to the increased cost of glycerine and sulphur and to higher wages at their Deer Park factory, Nobel (Australasia) Ltd., have felt obliged to increase their selling price (f.o.r. Laverton, Vic.) of gelignite 50 per cent. and Ardeer gelignite No. 2 by 1/6 a case to 56/- per case of 50 lb.; and gelignite 60 per cent. and Ardeer gelignite by 9d. a case to 59/3 a case of 50 lb. There will be no increase in the prices of all other grades of high explosives, detonators, fuse and blasting powder.

Wholesale and Retail.

McPherson's Pty. Ltd., of 51-65 Bathurst-street, Sydney, whose headquarters are in Melbourne, with another branch in Adelaide, have purchased outright, as from January 14, the large retail business owned and conducted by Mr. G. T. Savage at Queen Victoria Buildings, George-street, Sydney. The whole of the staff have been retained, and the stock taken over, and business will be conducted as usual, specialising mainly in craftsmen's tools, with other lines such as builders' hardware, paint, etc. McPherson's depot at Bathurst-street will be continued as heretofore, and Mr. R. E. Fiddy becomes general manager of the two establishments. Mr. Fiddy, it may be mentioned, has been associated with the firm for upwards of thirteen years, and for some years past as manager of the Bathurst-street establishment

Extension of Works.

Mr. L. T. Kennett, of 26 City-road, Darlington, N.S.W., has lately made very appreciable additions to his works, where he is turning out the "Kennett" patent safety extension ladder in large numbers. A feature of this ladder is that while weighing only two-thirds that of an ordinary ladder, it is at once stronger, and more reliable, being reinforced throughout with steel wire. The sides are made of Oregon, with spotted gum rungs and malleable fittings. It is constructed to carry up to thirty stone, and can be taken apart and used as two separate ladders by simply untying a rope and sliding one section from the other. When required, it can be fitted readily with pole loop and foot plates for the use of electricians working on electric poles.

Mr. Kennett has also a special light bow top ladder extending to 16ft., and weighing only 28 lb. This is expressly designed for window cleaners, while a combination ladder and steps is suitable for domestic use for both indoor and outdoor work.

Building Activity in New Zealand.

From newspaper cuttings forwarded by one of our New Zealand correspondents we quote two paragraphs:—

"Great progress was made by Wellington city during the year 1926. On every hand signs of the advance are to be seen. Two-story buildings are being replaced by substantial permanent structures of seven floors; traffic is increasing at a pace which is creating difficulties for the controlling authorities. In the residential suburbs land is being subdivided and dwellings are being erected in great numbers. Where, only a few years ago, there were open spaces and dairy farms, there are now groups of houses. The business area of the city is extending to the residential quarters, and the suburbs are reaching out into the country."

"The solid growth in all directions and the complete absence of any boom conditions were the main characteristics of the building progress in Christchurch during 1926. From the point of view of those engaged in the building industry, it was a satisfactory year. At no time was there an exceptional rush of work, but steady progress was made month by month throughout the year, keeping all the first-class tradesmen regularly employed. Compared with 1925 there was an increase of £165,216 in the value of the building construction authorised by the City Council, the respective totals being £915,584 for 1926 and £750,368 for 1925."

Electrifying a Railway Tunnel.

Because of the discomfort to passengers from smoke and fumes inseparable from the use of steam locomotives in a tunnel on the railway connecting Christchurch with Lyttleton, its port, the New Zealand Government decided some time ago to have the tunnel portion of the line electrified. This decision was come to on expert advice and after due consideration.

Tenders are now being invited for the necessary materials and equipment. Three main contracts will be let (1) for ironbark poles and hardwood timber for the transmission wires, tenders closing on February 15; (2) for the hydro-electric power sub-station equipment, to be erected by the Public Works Department, tenders closing on June 6; and (3) for the general electrical equipment and six

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electric locomotives, tenders also closing on June 6. This last is, of course, the big item in the requirements, and tenders will be invited in Great Britain and elsewhere.

When early last year, Merz & McLellan, a London firm of consulting engineers, recommended the electrification of the tunnel, they estimated the cost at £198,300. Since then other means of overcoming or minimising the smoke nuisance has been suggested in certain quarters, such as the use of Diesel engines, but the Government evidently feel that electrification is their only hope of an effective remedy. Accordingly plans and specifications have been prepared departmentally and tenders are now invited for the required materials.

Hardware Trades Cricket Association.

Under the auspices of the Victoria Junior Cricket Association, two members of the above association were nominated to represent Victoria in the junior cricket match, Victoria v. New South Wales, Messrs. Stirling (Keep Bros. & Wood Pty. Ltd.) and Perryman (John Danks & Son Pty Ltd.). Both were accepted, and acquitted themselves well, and are to be congratulated. The Victorian team were beaten, but not disgraced. It rained practically the whole three days, and the match was played on green matting, a class of wicket new to the Victorians.

It is generally regretted that the team of Keep Bros. & Wood Pty. Ltd. has had to stand out of the competition, owing, it is said, to pressure of work at the warehouse. Hopes are expressed that this team will re-enter in full force next year. At the beginning of the season it was announced that a Motor Trades Cricket Association had been formed, and unfortunately this cost the Hardware Association two of its best clubs: S. N. Monks & Co. and A. G. Healing & Co. Pty. Ltd. The good wishes of their old associates go with them.

At a general meeting held on January 5, it was resolved to make every effort to secure more teams for next year's competitions. It is confidently expected that hardware firms will assist in this direction. The association has done good work in the past by bringing the various houses into contact on the cricket field, and the friendly rivalry amongst the organisations is also a binding force between employers and employees. The association is in a healthy position financially, and a portion of its funds is set aside for players' trophies for outstanding ability in batting, bowling and all-round play. Pennants and caps are also presented to winning teams. The treasurer will be glad to acknowledge donations for this purpose from those able to contribute.

The players' liability fund has had several heavy calls this season, but it is pleasing to know that it is fully able to meet these demands.

Arrangements are now being made for a social and dance to be held in the latter part of February or early in March.

The thanks of the association are tendered to the following gentlemen for financial help this season: Sir A. T. Danks, Messrs. Barton Adams, O. Addison, T. Luxton, L. J. Anderson, J. Payne and J. Ogle.

Following is a list of competition points scored by the various teams: D. & W. Chandler Ltd. 25 and A. E. Atherton & Sons Pty Ltd. 24 (no matches lost), Cyclone Fence & Gate Co. Pty Ltd. 18, John Danks & Son Pty. Ltd. 16, McPherson's Pty. Ltd. 16, Wunderlich Ltd. 11, J. Payne & Sons Pty. Ltd. 14, Dorman, Long & Co. Ltd. 12, Austral Otis Engineering Co. Ltd. 7, G. W. Kelly & Lewis Pty. Ltd. 8.

Electric Stoves.

(Contributed by 44/171.)

"Is electrical cooking safe?" "Is it satisfactory?" "Is it economical?" "Is it reliable?" These are a few of the questions you are likely to be asked if you suggest to your customer that she should discard the wood stove and buy an electric cooker of some kind.

The first demand on you then as a salesman is to enumerate the advantages of electric cooking. They are (a) Heat is available as soon as the switch is put "on." (b) Control is easy by means of a switch giving "high," "low" and "medium." (c) Cleanliness is ensured, there being no smoke or fumes. (d) Heat can be concentrated on the particular place desired. (e) There is no worry about fuel and ashes or time spent in lighting fires, etc. (f) There is practically no danger from fire. (N.B.—Electricity has been wrongfully blamed for many fires because nothing else was left to blame.)

Of these advantages, the outstanding two can be taken as convenience and cleanliness. With regard to running costs, inquiries must be made from the local electric supply authorities, and comparisons made between these charges and wood or gas costs. It has been found that the electric cooker can compete with the gas stove when gas is, say, 8/- per cub. ft., and electric current is somewhere about 4d. per unit. People in those Victorian towns under the State Electricity Commission's two-part tariff are paying somewhere about 1½d. per unit (after the "rental" of 1/3 to 1/6 per room per month has been paid), and are consequently well placed for electric cooking. Other places have a power rate from 3d. to 6d. per unit, and even they can use electricity to advantage, although the current cost may be slightly higher than gas. Wood costs need hardly be mentioned as far as city folks are concerned.

To sell an electric oven is a really difficult proposition if running costs are taken into consideration, although there are many satisfied users in Australia even now. Most of these electric ovens are provided with hot plates on top, which are very handy for boiling kettles, or heating saucepans, etc. If your customer is keen to have the stove for convenience you can safely propose an electric oven. For those who require a low-running cost stove, you can propose the automatic electric cooker. Approximately each compartment of this cooker uses the same amount of current as does an electric iron, or about 1 unit in 1½ hours. The advantage of this cooker is that the moment the "oven" is heated to a certain degree, it is automatically cut off and the heat is retained (by means of the old principle of fireless cookers), thus enabling the cooking to go on, although no current is being consumed. With current at 5d. per unit, a meal for four or five persons would cost approximately 6d. With current at 1½d. per unit the cost would be 2d. Even if this cooker were used on the lighting circuit, with current at 8d. per unit, it would only cost 9d., or 1/1 with current at 1/- per unit.

But whatever you do, do not say you "believe" such and such to be the case. Get hold of some facts, and then tell your customer that you "know." Arrange with her to attend a demonstration in the city (they are held by several firms once a week), or better still make arrangements with a wholesale house to run a demonstration at your shop, and keep the trade in your own district. The wholesaler will be only too pleased to help you sell his stoves. Your customer will most likely bring her friends along. With any such prospective buyers, remember that facts count more than hearsays, and a practical demonstration is much better than an explanation from a leaflet.

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Electrical Notes from New Zealand

(Specially Contributed.)

The boundaries of the Otago Power Board District have been extended to include the borough of Lawrence and portions of the counties of Bruce and Tuapeka.

Power from the Horahora hydro-electric system was officially switched on to the Waitemata Power Board's lines by the Minister of Public Works on December 20.

Wanganui Rangitikei Power Board reports an increase of 108 connections during November as compared with the previous month, and a total connected industrial load of 3,057 horse-power.

Otago Power Board has decided to raise a supplementary loan of approximately £13,400, this being about 10 per cent. of the amount of certain loans authorised for the completion of the board's works.

Aka Aka Drainage Board has decided to install electric pumps to give quicker discharge of water from the Mangawhera Creek into the Waikato River. About 800 acres of land will receive better drainage through this scheme.

New Plymouth Borough Council reports a substantial increase of load at the power house. During December a peak of 1850 kilowatts was reached, and the greatest number of units generated in one day 32,875, as against 608,150 for the corresponding period of last year.

Construction and reticulation work in connection with the supply of Mangahao hydro-electric power to Hawke's Bay is being steadily pushed forward by the Hawke's Bay Power Board. At the present time good progress is being made with the erection of poles and the stringing of wires.

Central Hawke's Bay Power Board has decided to charge as follows for current consumed for electrical displays made by electrical contractors:—First 1000 units, 3d. per unit; second 1000 units, 2½d. per unit; balance at 2d. A time switch is to be provided by each consumer to ensure that full rates shall be paid during peak load hours.

The following loans have been authorised for electrical purposes:—Te Awamutu Power Board (portion of £25,000 authorised on the installment system, over a period of 36½ years), £3,000. Also a loan of £62,000 has been authorised on the instalment system over a similar period.

Otago Central Power Board (for completing electrical works in the inner area), £2500.

Taranaki Power Board (for electrical works), £10,000.

As a result of the electrocution of twelve dairy cows through a fallen power line, for which the owner claimed compensation, the special finance committee presented a report to the Thames Valley Power Board recommending that the manager take out a policy for £1000, similar to the one operating in the Central Power Board area, against risk of electrocution of human beings and animals. The report also recommended that fence wires be earthed.

Tauranga Power Board has decided that the finance committee be asked to report upon the advisability of raising a loan for further capital expenditure and financing of consumers' installations. The number of services in the board's district to date is as follows: Domestic, 586; commercial, 50; shed lights, 298; ranges, 48; grillers, 113; irons, 402; radiators, 27; water heaters, 155; milking motors, 265; field pumps, 38.

A new tariff governing domestic supply has been adopted by the Board.

The following loans have been authorised for electrical purposes:—Hastings Borough Council, for purchasing electrical appliances, £13,500; Wairarapa Power Board, for electric works in the Ponatahi special rating area, £3000, and for electric works in the Ariaruhe special rating area, £750; Thames Valley Power Board, portion of £150,000 on instalment system over a period of 36½ years, £100,000; Grey Power Board, for the purchase and construction of electric works, £50,000; Te Awamutu Power Board,for electric works, £25,000.

During the early part of January a shortage of water in the storage dams of the Mangahao hydro-electric scheme resulted in the Wellington City Council's steam generating plant at Evans Bay being called on to supply the city's power and lighting requirements for about a week. During part of this time the steam plant carried the Hutt Valley load as well.

In anticipation of the water storage at Mangahao becoming diminished the Public Works Department had arranged with the local authorities for the Palmerston and Wanganui fuel plants to co-operate in maintaining electric supply. At the end of a week, however, heavy rainfall brought the output of the Mangahao station up to normal.

A new and interesting type of electrically-operated clock has lately been placed in several of the depots and substations of the Wellington City Tramways and electrical departments, and it is proposed to make this very useful novelty, known as the "telechron," available later on to private individuals.

The works of the clock consist of a very small electric motor and suitable gearing to operate the hands and connection is made to any lighting or hot point, or preferably, to a special point. The clock is set to correct time, and the motor runs in accord with the frequency of the alternating current supply (50 cycles per second).

Although, theoretically, the current alternations are constant, in practice this is not actually the case, but the control given by a master clock at the Mangahao power station, corrected daily to Government time, ensures absolutely correct time over a short period.

The system is altogether different from the synchronous clock system since there is no special wiring from master clock to individual clocks and no jumping of the hands as in the case where the master clock sends out single impulses.

The operating cost of the "telechron" is between one and two shillings per annum.

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British Imperial Preference in the Dominions

(Text of a Circular Letter sent to their members by the Federation of British Industries.)

The Federation of British Industries have recently had under consideration the question of the preferential tariff treatment granted to certain British goods by the Dominion Governments.

The Federation recognise with appreciation the benefits which this grant of preference has bestowed upon British trade. They cannot, however, fail to be aware that in certain Dominions there appears to be a tendency to reduce the amount of preference granted to British goods, and in some cases to abolish it altogether.

If one examines the situation one must come to the conclusion that there are two reasons why this country is in danger of losing such preference as it at present enjoys in the Dominions. The first is that in many of the Dominions there is a widespread determination to encourage and safeguard local industries. No reasonable persons can quarrel with the desire of the Dominions to foster local industries, so far as it serves their interests to do so, but although one recognises the natural desire of the Dominions to do their own manufacturing so far as economically possible, it is at least natural that in so far as they have to purchase from abroad it should be from Great Britain, their sister nation and their best customer, rather than from foreign nations.

Secondly, it is often stated in the Dominions that it is unreasonable of the United Kingdom to expect them to continue to make a gift to British trade by granting preference to Great Britain when the Mother Country does not reciprocate by giving preferential treatment to Dominion producers by means of a general tariff with preference for Dominion products. It is with regard to this argument that the Federation feels justified in drawing attention to certain facts which are often overlooked.

As already stated, the Federation are fully sensible of the benefits conferred by the Dominions on Great Britain, but they feel that the tendency which has manifested itself in certain quarters to withdraw those benefits is due to a belief in some of the Dominions that Great Britain grants no advantages to the Dominions in return for this gift of preference. Although, owing to the fiscal policy of this country, it is not possible to grant a direct return by way of corresponding preferences or, at any rate, only on a limited number of articles, the Federation would point out that there are other ways in which the United Kingdom is, in fact, conferring substantial benefits upon the Dominions, which may fairly be set off against the grant of British preference by the latter.

As an example, the Federation would venture to refer to the facilities which the Dominion Governments enjoy for the raising of loans on the British market. The advantage conferred upon the Dominions by the Colonial Stock Act of 1900 have been complied with in respect of stock totalling about £725,000,000, which has been placed upon the British money markets by the Dominions and their constituent States. It is worthy of note that many parts of the Empire when floating a loan, do not give any details of their financial situation, and do not consider it necessary to supply the material facts as to their budgetary and general financial position. It can hardly be denied that if the British Government had not passed the Colonial Stock Act, it would have been impossible for the Dominions and States to have raised money on such favourable terms as they have done in the past in London.

In the second place, the Federation would mention the cost of the naval defence of the Empire, and of the upkeep of the Imperial Services. On the former Service during the year 1925-26 Great Britain was estimated to spend £60,500,000; Canada £300,000 approximately; Australia £3,921,145, plus a special appropriation of £1,000,000 for defence purposes generally; New Zealand £538,325; Union of South Africa £139,893. The payment per capita of population in each case was as follows:

Great Britain	£1	6	10
Canada			8
Australia		13	2
New Zealand		8	0
South Africa		1	9

One can thus say that the overwhelming proportion of the naval defence of the Empire is borne by the United Kingdom. It is sometimes argued that this naval expenditure would be undertaken in any case by the U.K. for its own interests, but one can hardly deny the teaching of history that the requirements of defence depend upon political commitments and the extent of the interests one has to defend. In some wars it is true that the battleground may be Europe, but there are combinations of circumstances which might easily render other portions of the Empire the main theatre of operations. In any case, upon the existence of British seapower depends and must depend the free and unfettered national life of every part of the Empire.

Apart from the burden placed upon the British taxpayer by the upkeep of the British Navy, it is interesting to compare the total amount spent by Great Britain and the Dominions on Imperial Services, namely, Government, Army, Air Force, Services of the War Debt, and War Pensions.

According to a statement which was printed at the beginning of the year in the "Round Table," the total estimated expenditure in 1925-26 from ordinary revenue upon the above services was as follows:—

	Amount	Per Capita		
Gt. Britain & N. Ireland	£546,000,000	£12	8	3
Canada	29,000,000	3	7	2
Australia	33,000,000	6	1	9
South Africa	3,000,000	1	19	3
New Zealand	6,000,000	5	1	9

The above figures show clearly the enormous disproportion between the burden borne by the British taxpayer and the Dominion taxpayer on the upkeep of the fabric of the Empire.

The Federation trust that the foregoing facts may be held to prove that although the Dominions grant substantial advantages to the United Kingdom by way of preference, the United Kingdom in its turn is rendering services to the Dominions of very considerable value.

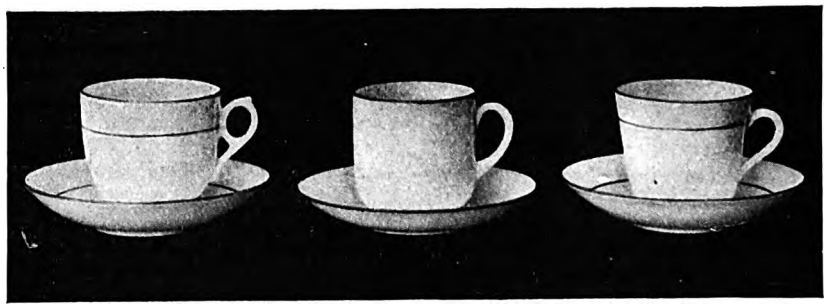
The Federation recognise the friendly feeling of the Dominions towards this country, and they reciprocate that feeling, and wish to see it strengthened and fostered in every way. They feel, however, that at a time when Imperial affairs are about to be discussed, it is well that the position with regard to the grant of preferences by the Dominions should be known, since nothing is so likely to arouse controversy as any misunderstanding as to the real facts of the case. They confidently believe that these facts are such as to lead the Governments of the Dominions to view sympathetically the retention and extension of the principle of granting preference to British goods over foreign.

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English Pottery

By T. W. H. (53/200).

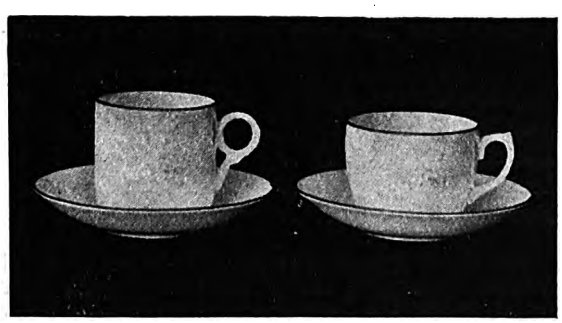
During the past twenty years the wonderful improvement in English pottery has been just as marked as the revolutionary methods of the great Josiah Wedgwood, when he converted "a crude manufacture into an elegant art," and laid the foundation for one of Britain's most glorious industries, which has created and maintained a world-wide reputation and demand for its productions, notwithstanding the competition of other countries with cheaper labour.



MINTON SILVER PARIS

English earthenware is without rival in purity of colour, perfect finish and durability and the general artistic standard is far higher than it has ever been. The day when "cheap" pottery meant "cheap and nasty" is gone; indeed, the cheapest article now must have the merit of being tasteful and attractive.

English bone chinaware is the production of England only; no other country has tackled the manufacture on a commercial basis. Its main components are china clay, china stone and bone ash (calcined bones), which, when fired and glazed, is highly vitrified and perfectly translucent. The inherent quality is immediately apparent on comparison with Continental or foreign felspathic porcelain. The latter, largely composed of felspar, is glassy by nature and glassy in appearance, with a greyish tint, and is much more brittle than the English pro-



CARLTON WORCESTER

duction. It is impossible to make a thin felspar cup with a glazed edge, and that is the reason why the foreign white and gold cup is so thick. The thin cup, with the unglazed edge, no matter how highly polished, is not at all hygienic and, like a chipped piece of pottery, its use should be prohibited.

Some of the difficulties of the crockery buyer are the many anomalies with regard to "trade" sizes, and the actual overall measurements of different lines. Competition doubtless accounts for the fact that a 5 in. earthenware plate may measure 6½ in. or 7 in. and in chinaware 6 in. Frequently it is stated that plates and dishes are measured from the inside of one rim to the outer edge of the other rim, but this is incorrect, as rims vary considerably in width and some dishes are rimless.

The sizes of plates are the most difficult to understand, as manufacturers who supply both the home and export markets, make two sizes, each called in the "trade" 5 in., 6 in., 7 in. and 8 in., and in giving the actual measurements alongside the "trade" sizes below, it will be essential to term them the "Home or full size," and the "American or second size."

Fortunately the potter's dozen is now a thing of the past, all quotations being for dozens of twelve and not for the long dozen, which varied from one article to seventy-two articles to the dozen.

Shapes and sizes of cups and saucers are often confused, and the names London, Norwich and Irish refer to sizes only. For the guidance of buyers the approximate holding capacity of these cups is given below and of other articles of interest.

Dinner Plates—Home or Full Size.

Trade size	Actual size	Trade size	Actual size
5 in.	6½ in.	8 „	9½ „
6 „	7½ „	10 „	10½ „
7 „	8½ „		

Dinner Plates—American or Second Size.

Trade size	Actual size	Trade size	Actual size
4 in.	6 in.	7 „	9 „
5 „	7 „	8 „	10 „
6 „	8 „		

Ordinary soups same as plates.
Coupe or rimless soups, trade 7 in. measure 8 in.

Meat Dishes.

Trade size	Actual size	Trade size	Actual size
9 in.	11 in.	14 „	16 „
10 „	12 „	16 „	18 „
12 „	14 „		

China Plates.

Trade size	Actual size
4 in.	5 in.
5 „	6 „
6 „	7 „

China Cups.

	Tea or London.	Norwich	Irish.
Minton or Paris ..	7½ oz.	9½ oz.	10½ oz.
Worcester	7 oz.		10 oz.
Carlton	7½ oz.		10 oz.
Melbourne or Canada	7½ oz.		10½ oz.

China Jugs, Teapots or Coffeepots.

12s—2pt. 24s—1½pt. 36s—1pt. 42s—½pt.

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Commonwealth Tariff Decisions

The following decisions of more or less interest to the Hardware Trade have been made during January. By way of explanation it should be mentioned that the double number on the left of each entry represents the tariff decision number, while the number to the immediate right is the tariff item, and the date following (13/12/26, and so on) the date on or from which the new decision took or takes effect:—

Electrical Appliances and Materials—

27/1 Condensers, Static, of the oil immersed type, including the oil in which the condenser units are immersed. (By-law No. 1518.) — 415a (2) — 13/12/26

Note.—T.D. 24/61, the reference to Condensers, Static Electric, etc., in "Guide," page 192, and the references (two) to Condensers in Consolidated By-laws, page 13, and in By-law No. 21, are to be cancelled. (By-law No. 1519.)

Electrical Appliances and Materials—

27/2 Regulators, voltage, automatic. (By-law No. 1520.) — 415a (2) — 13/10/26

Note.—Attention is invited to T.D. 24/193 dealing with the admission under Item 174 of Automatic Induction Voltage Regulators.

Cycles, Motor Cycles, and Side Cars, and Parts and Accessories—

27/20 Side Cars for children's use, to be attached to the style of bicycle ("Fairycycle") referred to in T.D. 25/343. — 310 (b) — 24/1/27

Electrical Appliances and Materials—

27/24 Condensers, oil filled, for use in the manufacture of Impedance Bonds, under security. (By-law No. 1542.) — 404 — 11/5/26

Iron and Steel—

27/27 Bars—
Fluted, half round (also described as "Crescent" Section Steel), used in the manufacture of perambulator wheels — The reference thereto in "Guide," page 161, is to be cancelled in view of T.D. 26/674. — .. — 31/7/26

Iron and Steel—

27/29 Plates and Sheets, viz.:—
Galvanised Sheets, corrugated, with very narrow slots punched at regular intervals for ventilation and light. — 208 (a) — 24/1/27

Machinery, Machines, etc., viz.:—

27/34 Hingeing Machine, process, for making a soft flexible hinge in any sheet of paper, but particularly in sheets for use with loose leaf binders. (By-law No. 1545—Paper finishing, etc.) — 174 — 2/12/26

Machinery, Machines, etc., viz.:—

27/39 Rubber-working, viz.:—
Drilling Machine, tube, for drilling a hole through the valve base and tube. (By-law No. 1535.) — 174 — 9/9/26

27/42 **Mandrels**, aluminium, circular or flattened, helical shaped, for use in the manufacture of pneumatic motor tubes. (By-law No. 1546.) — 415a (2) — 26/6/26

27/43 **Micrometer**, Compression loss — An apparatus for indicating loss of compression in cylinders of an internal combustion engine. — 208 (a) — 24/1/27

Monel Metal—

27/44 Stampings in the rough for all purposes. (By-law No. 1539.) — 404 — 27/4/26
Tubes. See "Pipes and Tubes (Metal)" (T.D. 27/46).
Wire. See "Wire" (T.D. 27/53).

Pipes and Tubes (Metal)—

27/46 Monel Metal (not plated, polished, decorated or further manufactured) for all purposes. (By-law No. 1539.) — 404 — 27/4/26

Rules—

27/49 Wooden, with a fine strip of metal inserted in one edge, showing English and Metric measurements. — 803 (a) — 24/1/27
Note.—These rules are generally in 12 inch or 15 inch lengths.
The reference to Rules, measuring (not being wholly of wood), in "Guide," page 324, is to be qualified accordingly.

Stocks, Dies, Taps, Chasers, and Screw Plates—

27/50 Stocks and Dies in Sets (on cards or in cases), each set comprising stock, one set of dies, one set of taps, and tap wrench are to be classified as a whole according to the classification of the stocks and dies included in the sets. — .. — 5/11/26
Taps imported separately are, however, classifiable under Item 176 (f) in accordance with T.D. 26/260.

Tiles—

27/51 Abrasive, used mostly for edging railway platforms or steps to prevent passengers from slipping in wet weather. — 240 (b) — 24/1/27

Wire—

27/53 Monel Metal for all purposes. (By-law No. 1539.) — 404 — 27/4/26
Note.—T.D. 23/739 and the reference in Consolidated By-laws, page 94, and in By-law No. 61 to Monel Metal for use in the manufacture of Woven Wire are to be cancelled as redundant.

Cordage, Threads, and Twines—

27/55 Wire Rope, Standing, Steel, Spiral Construction, composed of 19 strands of No. 3 gauge (I.S.W.G.) wire. By-law No. 1557.) — 388 (a) — 13/12/26

Cordage, Threads, and Twines—

27/56 Wire Rope, Steel, Flattened Strand, for use in the haulage of timber (under security). (By-law No. 1552.) — 388 (a) — 11/11/26

Electrical Appliances and Materials—

27/57 Cable, Telegraph and Telephone, paper insulated, copper screened and lead covered. — 181 (a) (1) — 16/10/26
Note.—Each single wire in this cable is paper insulated, with a thin covering of copper surrounding the paper insulation.

Electrical Appliances and Materials—

27/58 Electrodes, Bath, for use with Electro Medical Apparatus, each consisting of a strip of Carbon with a metal clip attached to one end. — 181 (c) — 31/1/27

Electrical Appliances and Materials—

Switches, cut in and cut out, and battery change over, for train lighting systems. See "Lighting Systems," T.D. 27/64.

Gauges—

27/61 Tank, in which mercury is used as the indicating fluid, for determining the quantity, weight or depth of fluids. (By-law No. 1550.) — 415a (2) — 5/1/27

Lamps and Lampware—

27/63 Signs for Petrol Pumps, each sign consisting of a metal frame with two glass faces upon which is indicated when the pump is installed the particular brand of petrol supplied. — 206 (b) — 17/6/26
Note.—These signs are usually attached to the tops of the pumps.

Machinery, Machines, etc., viz.:—

27/66 Crane, petrol-electric, mobile—
Chassis .. .. — 359 (d) (4)
Platform .. .. — 359 (f)
Seat with Canopy Top (⅓ fixed rate or ad val., whichever higher .. .. — 359 (d) (3)
Motor for driving Crane .. .. .. — 179 (d) (1)
Crane .. .. — 176 (f)
31/1/27

Note.—The reference to Cranes, Portable, Electric, etc., in "Guide," page 193, is to be cancelled.

Machinery, Machines, etc., viz.:—

27/68 Magnetos for use in the manufacture of Internal Combustion Engines. — 404 — 31/1/27
Note.—The reference in "Guide," page 210, to Magnetos for Internal Combustion Engines is to be cancelled.

Pipes and Tubes (Metal)—

27/73 Phosphor Bronze, solid drawn, for use in the manufacture of Bearings, Bushings, and Seatings (under security). (By-law No. 1549.) — 404 — 13/8/26

Rods—

27/76 Phosphor Bronze, extruded, for use in the manufacture of Bushings, Bearings, and Seatings (under security). (By-law No. 1549.) — 404 — 13/8/26

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Australasian Metal Markets

All prices are quoted for approved brands, duty and over charges included. For English prices, see The Month's Cablegrams on page 48.

Sydney, February 2, 1927.

Trade has not been brisk during the past month, but by now conditions have brightened and there is every prospect of a prosperous year. Builders' requirements have had attention and satisfactory parcels have been disposed of. Large parcels of galvanised corrugated iron sheets are difficult to secure, and there have been many inquiries for both 24 and 26 gauge. Demand has not been satisfied and owing to the shortage of English brands on spot, and the extreme difficulty of securing further shipments, this position should exist for some time to come. Sales have been made of Australian unbranded and any available English sheets have been eagerly sought after. King's Windsor diamond plaster has had attention on spot, but as shipments are now arriving stocks should now be plentiful, though it is not expected there will be any reduction in price. Whitelead has had little attention, but fair parcels of English linseed oil have gone into distribution. However, the low quotations offering for linseed oil for some time past are still available. Stocks of American turpentine are still very full and parcels have not gone into distribution as freely as is desired. This is reflected in some of the low quotations offered by Sydney merchants. New season prices for Pine-tree turpentine are now being awaited with interest. These has been a rise in the indent quotations for American resin, and this resulted in several satisfactory parcels changing hands during January. Spot stocks are still plentiful, but no doubt the demand will continue. Business in jute fabrics has not been satisfactory and hessian is in full supply. A.B.T.N. shellac still continues firm on the local market, and practically all available stocks on incoming steamers have been disposed of at very satisfactory figures. Interest continues in the small available stocks of tanks, and there has been a rise of 10/- in the quotations for 200 gallon capacity.

Christchurch, January 14, 1927.

Conditions in Christchurch and in Canterbury generally are most favourable. A bumper harvest is assured to the farmers; all that is now required is plenty of warm sunny weather without rain. There should be a great demand for labour to harvest the crops, and all the present unemployed will be easily absorbed. In addition to this the recent wool sales have been most successful and higher prices than anticipated have been realised. These factors will restore a feeling of confidence to the community and put a lot of money again in circulation. The Railway Department is now calling for tenders for the electrification of the Lyttelton tunnel. During the month the executives of the principal business firms have been absent on their annual leave, but at time of writing the city is back to normal again. The large drapery sales start next week, and these help to keep the city busy. An advance of 2½ per cent. in price of galvanised and steam piping has recently taken place by agreement between the Hardware and Plumbers' Associations, while a reduction has been conceded in the wholesale price of cast iron baths, Metter's second quality being now £7/10/- and Doulton's, Carron's or Metter's first quality £8/10/-, with £1 advance to retail purchasers. Shipments of fencing wire and other materials are coming forward in anticipation of the early autumn fencing, but prices so far appear to be unchanged. Certain contractors complain of the delay in securing reinforcing steel ordered from British sources, while others have had no difficulty in securing supplies from Canada. Painting materials, such as white lead and linseed oil, are still being sold at very low and unprofitable levels owing to excessive competition. Gelignite has advanced 3/- per case in cost, while petrol in bulk has dropped 1½d. per gallon. All over the city now bowsers for filling up motor cars with bulk petrol have been erected, thus eliminating the cost of cases and tins. Building operations in the city for the year just closed as indicated by the city statistics show that a greater amount has been spent than during the previous year, a sign of continued prosperity. At the present time, however, builders are not as busy as usual. The local representatives of the British

NEW ZEALAND PRICES.

	Duty.	Auckland. Dec. 20	C'church Jan. 14	Dunedin. Jan. 17	Wellington Jan. 27
IRON—					
Bar—		£	£	£	£
English ..	Free	22	24/	24/	24
Shoeing ...	,,	24	25/	23/	25
Steel ...	,,	22	20	23/	18/6 to 25/
Pig	,,	8	10/6	10/6	9/- to 10/-
Plate ...	,,	23 10/	25/	24/	24/6
Hoop ...	,,	24/, 35/	33/	32/	33
Sheet, Blk.	,,				
to 20-g. ...		24 10/, 25 10	27/6	25/6	26/6
22 & 24 g.		26 10/	29 6	30/	26/6
Galv. Cor.—	2/-				
First ...		32	34 Builders	34 10/	33 10/
Second ...	,,	31	31/6 ,,	33 10	32 10/
Local ...	—	32		...	...
Do., Plain	Free		...		
24 & 26 g.		33/, 35/	33/, 35/	40, 48, 44	32 10/
Pipe—Galv.	Free	40%	45% off	42½	40% off
,, Black	,,	45%	50% off	50% off	50% off
Wire—	,,				
Galvd. ...	,,	16, 17 10/	17/6	16/6	17 6 to 18/6
Black ...		16	16/6	15/6	
Barbed ...	,,	21, 23 10/	22/6 to 23 6	21/	25 6 to 26/6
Nails ...	2/4/-c	20/6	22/6	22 10/, 23 10/	23
,, N.Z.		...	...	...	23
Lead—Pig	Free	38	42/6	55/	40/
,, Sheet	,,	46 5/	50/	50/	60/
,, Shot	10/-	75/	80/	80/	75/
Tin—Ingot	Free	3/5	3/4	3/2	3/6½
,, Plates	,,	35/6, 48/6	45/ I.X.	40/	37/
Zinc—Sheet	,,	9d. lb.	9d. lb.	8½d.	8½d
Quicksilver	—	...	6/6 lb	...	...
Cement—					
Imported	1/-cwt.	...	22/6 cask	...	...
Local bag	—	5/8	6/10	6/	5/11
Slates ,,	Free				
P. of Paris ...	,,	27/6	32/6	28/6	27/6
White Lead	10%a.v.				
Best ...	—	63/	62/6	67/ to 65/	69/ to 70/
Second ...	—	61/		...	68
Blst. Powder	Free	1/8	1/9	1/7	1/8
Rope— ...	20%				
Manila, Star	—	111/	111/	116/	111/
,, O. ...	—	107/	107/	112/	107/
Flax, N.Z. ...	—	81/, 88/	88/	88/	88/
Co nsacks ...	Free				
44-in. ...	—	...	...	13/3½	14/6
46-in. ...	—	...	14/9	13/1½	14/9
48-in. ...	—	16/6	15/	13/8½	15/
Woolpacks ...					
Full ...	Free	5/6	5/3	4/11½	5/3
Oils—					
Lins'd, raw	6d.	5/5	N.Z. 4/8 Eng. 4/11	5/3	5/9
Castor ...	Free	5/3	6/	5/6	5/6
Colza ...	,,	7/9	8/	8/-	7/9
Kerosene	,,	14/3	14/3	14/3	14/3
Turpentine	,,	8/-	8/	8/-	7/6 to 8/

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netting manufacturers who in the past have kept up big stocks of netting in Christchurch, report that this has not been very profitable to them, while undoubtedly being a great benefit to the local reseller. Several of these manufacturers' representatives advise that in future they will only deal with indent business and not carry stocks for their clients' convenience, as the loss of interest on heavy stocks is out of all proportion to the profits gained. This should materially assist Australian manufacturers, who ought to be able to give delivery in two weeks at the outside.

Dunedin, January 17, 1927.

Unlike preceding seasons at this time the usual lull in business succeeding the beginning of the new year has not taken place. Building operations have resumed with increased activity, as evidenced by the many contracts now in progress, several of which are of considerable magnitude, while the future holds prospects of other similar undertakings. The forebodings of a slump in the wool sales has been dispelled by the greatly improved tone in that market, and recent satisfactory prices promise even better results yet to come. Country prospects are not so bad as were for a while feared owing to the rather inclement weather. Reports are that crops promise to pick up as the season advances. With such conditions obtaining the current year should turn out all right. As an evidence of the steadiness of the market there are no changes in the price list for this month. The values then shown are being maintained.

Wellington, January 27, 1927.

Hardware houses are still holding very small stocks of English goods, especially of heavy iron lines, some of which are very scarce. Now, however, that work is resumed in England, it is hoped that it will not be long before fresh supplies are received. It will take a little time, no doubt, before stocks can be built up again to a normal level. Quotations are keeping very firm, but with few changes this month. Work has quite settled down after the holidays, and there is a good deal of work in hand, consequently trade keeps fairly active. Galvanised iron is still very short and firm. English fencing wire is short, but Canadian is fairly plentiful. Wire nails keep in ample supply and steady. Bar and plate iron and steel sheets are in very fair supply at last rates. Lead is in moderate supply, but somewhat quiet. Other metals show no change. The seasonal demand for fencing wire is due next month, and till then there is not very much doing. White lead keeps steady with moderate stocks held and very fair inquiry. Linseed oil is a little high here and supplies are good. Other oils keep steady with adequate supplies available. Cement supplies are fairly well maintained and demand keeps steady. The general prospects for trade are fairly bright and a satisfactory turnover is anticipated.

Brisbane, February 1, 1927.

Since last report there has been a satisfactory clearance of shelf goods—crockery, glassware, aluminium and enamelledware. There was a general feeling of an oppression lifted when the earlier rains fell in many places during December. The financial stringency caused by the prolonged drought had a depressing effect on the hardware trade, and only lines that were essential to the wants of the districts were ordered. January promised to open up fairly well until the institution of the forty hours week strike by the building trade unions. The rains at the beginning of the month developed and precipitous falls were registered over the greater portion of the State. This will certainly have an encouraging effect upon country trade, and we may expect to hear of satisfactory business during February and March. Stocks generally are satisfactory and prices almost without exception are unchanged in the wholesale trade, although there has been a fair amount of cutting in the retail during the course of the midsummer sales. Paints and oils are at a standstill owing to the painters being out on strike. For sanitary plumbing and accessories the demand has also been dull, owing to the excessive wet weather. Prices have eased a little. Colonial carbide has been moving freely, but stocks are plentiful. Imported lines are scarce and holders are asking increased prices. Fencing wire and wire netting have been moving freely, and good business is reported from the country. Jute lines are slow at present, and little movement can be expected before the end of March. On present outlook, large quantities will be required for the maize crop.

Melbourne, February 3, 1927.

A good demand was experienced during January for heavy metals and materials generally, although the actual volume of business was not very large. The price of steel shows an upward tendency, several classes such as plates and angles being sold in advance of former quotations. Bar iron was also in request. Sales noted were 5 tons bar iron 4½ x ½ at £18 per ton, and 10 tons Australian, assorted, at £16/10/- basis. Galvanised iron was not plentiful, and it is fairly certain that prices will gradually increase, owing to the coal strike. The inquiry continues strong. Ten tons corrugated 26G, fetched £28/10/-, giving an indication of the market. Iron pipes also found plenty of buyers, the supply being rather short. A parcel of 30,000 ft. 2 in. galvanised pipe sold at 55 per cent. off, and another of 20,000 ft. ¾ in. changed hands at the same discount. Here again one might predict with confidence a hardening of prices. Fencing materials turned over steadily. Ten ton lots of No. 8 black wire went at £14 net. the same gauge in galvanised bringing £16 net. Wire netting sold well. In quantities of from 3 to 5 miles the following sizes were in request: 42 x 1¼ x 17 at £49; 42 x 1½ x 17 at £41/10/-; 30 x 4 x 16 at £19; 60 x 2 x 18 at £40/15/-; 48 x 2 x 18 at £31; and 36 x 1½ x 18 at £29. Barbed wire showed no change from last month. Several parcels of ingot tin brought £290/10/- on interstate account. Cement of Australian make finds constant buyers for municipal works and big buildings, although but little could be traced for smaller construction purposes. English brands have not shown much movement of late, and it would not seem that there is much on offer locally. Here and there sales have been reported in rabbit traps, which are expected to find good demand shortly. Twenty-five dozen Griffiths brand sold at 22/6. Shelf goods and small lines have been quiet since the Christmas boom, and hardware stores have found trade dull. Manufacturers and their representatives have, in consequence, been unable to secure more than moderate orders during the past month. Sheep shears are quoted at an advance of about 4/- to 5/- per dozen, and good business for the coming season is anticipated. Paints and oils moved somewhat slowly. White lead shows a reduction of a few shillings per cwt., best imported brands selling recently at 70/-. Twenty-five case lots of castor oil were quitted at 5/- per gallon. In quicksilver, 10 bottles sold at 5/6. Wire nails are reported to have again eased in price, being now quoted in many instances at 20/-. Nobel (Australasia) Ltd. have increased the price of gelignite owing, it is explained, to advanced prices of glycerine and sulphur, and also to the fact that higher wages are being paid at their Deer Park factory.

Perth, January 26, 1927.

During the past few weeks the lines affected by the coal strike, which is fortunately now past, have been becoming scarce. Bar iron especially has

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been a dwindling commodity as regards stocks. Price of bar iron stands at £25/12/6, while mild steel for a parcel can be bought for £21/2/6 per ton. Galvanised iron has been scarce also, but the arrival of the m.s. "Durenda" has relieved the position somewhat. The price is for Orb corrugated 5/8 ft. x 25 gauge, £32/5/- ton net, and 24 gauge £31/5/-, Guinea brand in 26G being 15/- ton less than Orb. In plain galvanised iron 24 gauge is quoted at £33/10/-, and 26 gauge at £35. Kerosene is being sold at 13/- per case, linseed oil in cases, for Australian 4/11 gallon for raw, with 3d. per gallon advance for boiled, and for English in drums 5/5 is asked for raw. White lead for a parcel can be bought at £69 ton basis, galvanised pipe at 45 per cent. off list, and wire netting, domestic sizes, at 57½ per cent. off. Wood screws are selling at list plus 5 per cent. for iron, and list plus 55 per cent. for brass. Axes, both Kelly and Plumb, fetch 95/- case, and crosscut saws, 6 ft., 34/6, and 6½ ft., 40/- each. Axe handles are 21/- to 31/- dozen, according to brand and quality, and files 40 per cent. off list. Calcimo rules at 42/6 per case, porcelain enamel baths, £8/10/-, carbide £31 net, and tinned hollowware 60 per cent. on list.

The Month's Cablegrams

Copper, Tin, and Silver. — The following table shows the quotations at the undermentioned dates, compared with those of the corresponding periods last year:—

Date.	Copper. Electrolytic. Per Ton.		Tin. Standard. Per Ton.		Silver. Standard. Per Ounce.	
	1926	1927.	1926.	1927.	1926.	1927
	£	£	£ s. d.	£ s. d.	d.	d.
Jan. 4..	65⅜–65⅝	63–63½	280 2 6	301 5 0	31 11/16	24 11/16
,, 10..	65⅜–66	62–62¼	285 7 6	301 17 6	31⅝	25 1/16
,, 17..	65⅜–66	62½–63	283 15 0	301 17 6	31½	25⅛
,, 24..	65½–65⅝	62½–62¾	281 2 6	299 7 6	29⅝	26 7/16
,, 31..	64½–66	62–62½	275 7 6	292 2 6	31	27 5/16
Feb. 4..	65½–65⅝	60½–60½	277 7 6	289 12 6	31½	27⅛

The stocks of tin in the United Kingdom at the end of January were 14,193 tons, the deliveries for the month 2,514 tons, the quantity on spot 273 tons, and the quantity afloat 1,734 tons.

Lead.—In the London market soft foreign lead on spot has been quoted as follows: January 4, £28 8/9; January 10, £27/15/-; January 17, £27/16/3; January 24, £26/17/6; January 31, £26/8/9; February 4, £26/6/3.

For the month of December the imports of lead into the United Kingdom were 28,504 tons, including 15,101 tons from Australia. The exports were 1,169 tons.

Spelter.—The spot quotations for spelter, as cabled from London, have run as follows: January 4, £32/7/6; January 10, £32/2/6; January 17, £31 12/6; January 24, £29/15/-; January 31, £29/5/-; February 4, £28/18/9.

Tallow.—Following are the statistics for January and particulars of the latest auction sales:—

Jan.	Casks.	Date.	Casks Offered	Casks Sold.	Mutton, Med., per cwt.	Beef, Med. per. cwt
Imports	1494	Jan. 5	1,889	600	35/6	35/
Delivers	1596	,, 12	858	412	35/6	35/
Stock	8489	,, 19	1,163	331	35/6	35/
		,, 26	Nil			
		Feb. 2	1008	315	35/6	35/

Sheffield Cutlery.

(From "Engineering.")

For centuries Sheffield has been associated with the making and working of iron and steel. There are many evidences of ancient workings of iron ore in this district, and, but for the rapidity with which iron rusts in such a northern climate as ours, archæologists would doubtless have found many more interesting examples of early ironwork. The Romans themselves taught the Briton much concerning the working of iron, and the Norman invaders brought over many smiths and skilled artisans. It is recorded that one of the Norman lords obtained a charter to erect forges at Kimberworth about the year 1100. Of one of the characters in Chaucer's "Canterbury Tales," we learn, "A Shefelde thwytel bare he in his hose," showing that Sheffield cutlery was well known and esteemed nearly 600 years ago. At a later date, when presenting Sheffield-made knives to Lord Burleigh, Lord Shrewsbury wrote: "Such things as this poor country affordeth with fame throughout the realm." Sheaves of arrows form the device on the seal of the church burgesses of Sheffield and, in the tradition that arrow heads made at Sheffield were largely responsible for the victories of Crecy and Agincourt, we have the earliest reference to armour-piercing projectiles of those days being made in this city. According to Johnson, the antiquarian, Sheffield had, at that time, supplied the Government with 5000 arrow heads at a price of fifteen pence per hundred.

Mr. John Derry, in his interesting "Story of Sheffield," recalls that Leland, who travelled through England between the years 1536 and 1542, said there were "many smiths and cutlers in Hallamshire," and also "very good smiths for all cutting tools" at Rotherham. Between 1554 and 1570 61 trade marks were granted by the Lord of Hallamshire (the Earl of Shrewsbury) through his Court at Sheffield, to the master cutlers in his lordship. At this time iron was being imported into Hallamshire from Sweden and Spain through Hull and Bawtry. The arrival of six barrels of steel from Bawtry is noted in the memorandum book of the earl's steward on October 8, 1574. In his book, "The Writing Schoolmaster," Peter Bates (1590) gave advice regarding the making of quill pens; "first then by the choice of your penknife. A right Sheffield knife is best." The dramatist Nash also uses the term "right Sheffield" to signify the best quality. The preamble to the Act of James I. (1624), incorporating the Cutlers Company, speaks of the cutlers who had "by their industry and labour gained the reputation of great skill and dexterity," and "made knives of the best edge, wherewith they served the most part of this kingdom and other foreign countries." A few years later a Sheffield cutler and his trade mark figured prominently in the history of the Civil War, for the knife found in the body of the Duke of Buckingham, assasinated in 1628, was stamped with a corporate mark which led immediately to the discovery of its maker. Notwithstanding the fact that its fame had spread "throughout the realm," the Sheffield of those days was small and far from flourishing. Local history states that its population was about 2000, nearly one-third of whom were unable to live, save by the charity of their neighbours.

Fitting the Doorknocker.

Architect: Now, if you'll give me a general idea of the kind of house you need . . . Client: I want you to fix me up something to go with a doorknocker my wife brought home from Boston.

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Australian Market Prices

N.B.—The prices given in these columns are mostly those at which wholesale merchants are prepared to supply ordinary parcels to storekeepers, or other retail dealers. In a few cases we give the quotations of manufacturers or their agents. Preference as well as general duties are shown in the "Duty" column. The first rate is that on goods from the United Kingdom, and the second is the general rate on goods from foreign countries. "F" represents free, and "F 10 %" free from the United Kingdom and 10 % from other countries.

	Duty	Sydney Feb. 2	Melbourne Feb. 3	Adelaide Dec. 24	Brisbane Feb. 1
Pig Iron	20/. 40/	£	£	£	£
British		...	7 5/	...	...
Swedish		...	...	...	...
Lithgow		7 10/	7 5/	...	...
Newcastle		7 10/	7 5/	8 15/	...
Bar and Rod	44/. 120/	22 basis	English 21	24 10/	22/10 basis
Australian		...	18/6	...	...
Mild Steel	44/. 120/				
Bar		19 10/basis	17 basis	19	18
Angles		19 10/	18	19 10	19
Tees		21	18	20 10	20
Hoops	F., 10%				
Black		20 basis	19 basis	19/6	21/ basis
Galv.		32/6 basis	35	33/6	31 10/
Galv. Corr. 24g.	20/. 60/	30/]	29 10/	30 5/	
Orb 26 g		30	31	31 10/	30 5/
,,		31 10/	31		31 10/
Adams Mars		...	...	29	...
Phoenix Cr.		29 15/	30	29 10/	32
Galv. Plain 24g.	20/. 60/	30/]			
Queen's Hd.		32/	31	32 10/	33
Phoenix Cr.		31 5/	33	...	...
Fleur-de-lis		31 10/	...	32	33
Other		...	31 10/	...	43/
Sheet	F., 125/				
Black		27 basis	25 basis	24	26
Baldwins		B26, G34 5/	26 10/	...	19
Plate	F., 120/	basis			
Steel		18 basis	15 basis	15	15 10/
Girder		19/6	21	19	21
Fencing Wire	F., 120/				
American 8		18 5/	18 5/	16	..
,, 10		19 5/	19 5/	17	...
Austra'n 8 Bl.		15 12/6	15	...	16/
,, 10 ,,		16 12/6	15 10/	...	17/
Galv. 8		17 17/6	14 10/	18 10/	18 10/
,, 10		18 17/6	15 10/	19 10/	19 10/
,, 12		20 2/6	18 10/	20 15/	20
Barbed Wire,	68/. 180/				
Amern. 12-g.		21	...	...	25 10/
,, 14-g.		25 10/	...	...	26 10/
Austn. 12-g.		24 10/	24	26 15/	25 10/
,, 13-g.			25	27 15/	26
,, 14-g.		25 10/	26	28 5/	26 10/
Wire Netting	F., 200/				
36 x 1½ x 17	per. ton		36 15	38 10/	
36 x 1½ x 18			29	37/	New
42 x 1½ x 17		15%	49 10/	...	List
42 x 1½ x 17		to	42	...	
42 x 1½ x 18		20%	34	43/6	10 to 15%
36 x 1⅝ x 17		off	35	...	
36 x 1⅝ x 18		list	28	...	Off List
36 x 2 x 18			22 10/	31/6	
36 x 2 x 19			20	25/6	
Nails—					
Horshoe	12/. 15/	2½% on list	to 1/ lb.	1/ less 10%	List Price
,, Austn.		...	List	...	plus 5%
Wire	5/6. 8/				
,, Austn.	or25%,35%	28/6 basis	20/ to 22/	25/ to 37/6	30/- basis
Roofing—	5/6. 8/				
Evenden		74 6 cwt.	65/cwt., 9/6	10/	11/
Lead-head		...	...	...	44/
Block Tin	Free	290	290	3/4	2/8
Tin Plates,					
28 x 20—	F., 10%				
I.C. Coke	28 x 20	112's 67/6	47/6	56's 39/ 37/	27/
I.X. Coke	56s	47/6	75	...	42/
Pig Lead	Free				
Austn.		34	42	42/	38/10
Sheet Lead	10%. 20%	49/	50	51	57
Dampcourse					
2—2½ lb.			52		
3 lb.			50		
Lead Pipe—	10%. 20%				
¼ to ⅜in. coils		54/	52	57 10/	68/
Soil Pipe		56/	54	60	71/
Compo. ½" & up		59/	56	59 15/	69/
Copper—					
Ingots		...	70	97/6	10d.
Sheet	25%. 40%	1/6	1/7	1/8	1/8
Brass					
Sheet	25%. 40%	1/3	1/2 to 1/6	1/6	1/6

	Duty	Sydney Feb. 2	Melbourne Feb. 3	Adelaide Dec. 24	Brisbane Feb. 1
Zinc—		£	£	£	£
Sheet 9 to 18g (7 x 3 & 8 x 3)	25,% 40%	67 10/	62 10/ to 65	75/	65/ cwt.
Perforated	35%. 45%	5/6	7	...	5/6
Spelter	10%. 20%	32	...	54/	...
,, Elec....		30 10/ to 37	41 to 42	...	40/
,, Brazing	25%. 40%	1/9	1/5	...	1/9
Bolts & Nuts—		⅜" ½"	⅜ ½ ⅝		
Cuphead 3"		75/. 59/	63/ 47/ 41/		
,, 4"	35%. 50%	76/. 57/	61/ 46/ 39/	...	26/3 to 73/
,, 5"		70/. 54/	56/ 43/ 37/		
,, 6"		65/. 49/	52/ 39/ 35/		
,, 6½" to 9"		61/. 47/	49/ 38/ 34/		
,, 9½" to 12"		59/. 45/	47/ 36/ 32/		
Tanks, 400-gal.	Free	6 10/	5 15/		5
,, 200-gal.		3 10/	3		3
Tubing—	F., 10%				
Black, up to 3"		50 off list	55% off	58½off	List 40% off
" 3½ & up	27½		65% off	35 off	.. 5% on
Galv. up to 3"		46½ ,,	45% off	46½off	.. 35% off
" 3½ & up	27½	...	tst. List	20 off	.. 15/ on
Steam, up to 3"		35 ,,	37½% off	37½off	.. 5% on
" 3½ & up	27½	...	5% off	20 off	.. 25% off
Wr'ght boil.		...	10% on	...	.. 15% on
Explosives—	F., 5%				5/
Hall's C.C.	10%	1/-	10½d.	...	1/1
Curtis's		10½d	10½d.	1/0½	1/
Chilworth's		10½d.	...	...	1/1
Sporting	15%. 25%	3/6, 4/6	2/9 to 4/6	3/6 to 4/11	3/6 to 5/3
Diam. S'less		10/	8/ to 8/6	8/3 to 8/6	5/
Amberite		8/6	7/ to 7/6	6/9 to 7/6	75/
Blast'g Gel.	F. 5%	74/6	74/6	74/6	77/
Gel. Dyna.		66/	66/	66/	68/
Gelignite		56/ to 59/6	56/ to 59/3	54/6 to 58/6	58/ to 62/
Dynamite		51/ to 57	51/ to 57/	46/6 to 51/6	...
Detonators	15%. 25%	55/	55 to 60/	60/ to 85/	58/ to 102/
Shot—Chilled	5/. 6/	70/	61	75/	90/
Australian		68/6	56	...	...
Cyanide Pot.	Free	1/4	1/6	...	1/6
Quicksilver	Free	5/	5/6	7/6	5/9
Sash Weights	35%. 45%	16/	22/6	16/6	18/6
Sheep Shears	F., 10%	62/6	65/	60/	60
Cement—Impt'd	20%. 30%	25/ cask	21/6	22/6	21/ cask
Aust. (bags)		...	18/	7/4	6/6 bag
Plaster, Imp.	1/6, 2/c	37/6 K.W.	35/	47/6	50/ cask
,, Aust.		Pixie 35/-	8/	9/3	18/ bag
Slates (20 x 10)	30%. 40%				
White Lead—	8/. 10/. or				
Imported	25%. 30%	74/	70/	84/6	78/
Australian		64/6	64/	75/6	71/
Zinc White	20%. 30%	...	70 to 100	...	72/. to 90/
Oils—					Coloni al 56/
Linseed (raw)	9d., 1/		Drs.,		
Imported		R5/6	5/	Drs., 5/9	5/4
Australian		C4/11 D 5/1	C., 4/8	Drs., 5/6	4/9
Colza	6d., 8d.				
Burning		...	6 -	...	
Castor—	9d., 1/				
½-cases		C 6/	6/3	7/	7/3
China	2s., 2/6	...	8/	...	...
Cotton seed	6d., 8d.	...	8/6 to 10/	...	10/
Kero.—C.O.R.	Free	...	13/	...	...
Laurel		13/	13/	13/	13/
Light of Age		13/	13/	13/	13/
Pennant		13/	13/	13/	13/
Turpentine	F.,	6/6	6/3	7/9	7/3
Substitutes	½d., 1d.	3/	18/ per case	...	2/9
Shellac		2/6	2/9	2/6	2/9
Whiting—	6d., 9d.				
English		9/	9/6	11/	£12 ton lots
Colonial		4/9	4/6	6/6	...
Resin, G grade	Free	45/	38/	45/	37/6
Carbide—	80/. 150/				
"I X L"		30/	25/6	29 5/	29. 7/6
Scandinavian		33/-	27/6	33 10/	33
Canadian		...	...	...	...
Japanese		...	...	...	...
Bluestone—	100/. 200/	...			
Macclesfield		38/	37/	...	38/
Australian		36(1 cwt c/s)	...	37/6	...
Japanese		...			
Stock. Tar, 42 g.	25%. 35%		1/5	...	
Woolpacks—	Free	...		...	...
42 x 11½		...	6/	5/9	...
54 x 11½		4/6	5/	4/9	5/-
Cornsacks—	Free				
2⅜ lbs. (Oats)		...		...	...
2¼ lbs		10/6	10/6	11/6	13/6
Branbags	Free	8/6	8/6	8/6	9/ to 10/

Small buyers requiring credit for broken parcels must expect to pay more than prices here quoted.

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Business Register

If you correct them monthly by these pages you will have lists more up-to-date than any Directory. Some leading firms do this.

New South Wales

Mr. A. E. Ackland, factory representative for General Accessories Co. Ltd., and other English manufacturers, has removed from Royal Arcade to larger and more convenient premises at 189 Clarence-street, Sydney.

Firms Registered.

Staffordshire Porcelain Co., manufacturers of domestic pottery, etc., 112-114 Walker-street, Redfern; proprietor: Frederick Gough.

Australian Metal Tubes Manufacturers, manufacturers of tubes out of metal, 20 Martin-place, Sydney; proprietors: Frederick C. Kosmala and Jack Rule.

Sheffield Cutlery Co., cutlery importers and distributors, 178 Castlereagh-street, Sydney; proprietors: Margaret W. Sitch, William J. Naughton, James E. Burke and John A. Burke.

Company News.

Rapid Electric and General Heaters Ltd. announce that the capital of the company has been increased from £15,000 to £25,000 by the creation of 10,000 new £1 shares.

The Australian General Electric Co. Ltd. are now domiciled in "Mazda House," 93-95 Clarence-street, Sydney, which for many years was the warehouse of Feldheim Gotthelf Ltd.

Metters Ltd. are temporarily occupying the premises in Wentworth-avenue, Sydney, vacated by the Australian General Electric Co. Ltd., pending the rebuilding of their own premises recently destroyed by fire.

Squire, Pepper & Co. Ltd. have been registered with a capital of £50,000 in £1 shares. Objects: To acquire and continue the business of general merchants and storekeepers carried on at Cowra under the style of Squire, Pepper & Co., etc. Subscribers: Philip Squire, Mary C. Squire, Raymond Squire, Baie Squire, Lynn Donaldson, Charles Marshall, Alice C. Marshall and Harold C. C. Marshall. Reg. office: Cowra.

Feldheim, Gotthelf, Ltd. (in liquidation). A statement with regard to the winding-up of the affairs of Feldheim, Gotthelf, Ltd. (in liquidation), has been submitted to shareholders by the liquidators (Messrs. F. J. Smith and J. S. Williams). Earnest efforts, it is said, were made to realise the freehold porperty, without success. Eventually, to prevent foreclosure by the mortgagees, an offer of £70,000 was received and accepted and, after discharging the mortgagees, there remained a surplus of £2,136. The remaining assets were in due course realised, and out of the funds in the hands of the liquidators further dividends, totalling 3/0§ in the £ were paid to the unsecured creditors, making, with the 9/- paid in the previous year, a total of 12/0§ received by them.

New Zealand

Company News.

Bristow Pneumatic Farm Drill Co. Ltd. have been registered with a capital of £30,000 in £1 shares. Objects: To carry into effect a certain agreement, etc. Subscribers: E. H. Clark, W. G. Douglass, B. Seth Smith, C. Wood, A. A. Douglass, T. Chapman, K. W. Dalrymple, and J. Deans. Office: Office of Stewart, Beckett & Co., 152 Hereford-street, Christchurch.

Door Appliances Ltd. have been registered with a capital of £1,500 in £1 shares. Objects: To carry on business and exploit the letters patent for Walton door stops, bolts and spring hinge, and any improvements and incidental. Subscribers: J. E. Piper, G. H. Mason, L. J. Opperman, H. S. Walton, F. I. Cowlishaw, W. R. Crompton and W. Baxter. Office: 63 Cathedral-square, Christchurch.

Queensland

Federal Cash Store, general storekeepers, Cloncurry, have been registered under the Firms' Act; proprietor: William H. Absolon.

Company News.

Metters Ltd. have been registered with a capital of £1,000,000 in £1 shares. Objects: To carry on the business of ironfounders, windmill, stove and oven manufacturers, wholesale and retail dealers in all kinds of merchandise, manufacturers and warehousemen, etc. Subscribers: Henry L. Spring, Thomas C. Tait, Arthur J. Walkley, Arthur C. Cutten, George Matthew and Thomas Small. Reg. office: 118 Mary-street, Brisbane.

McKay Cane Cutting Machinery Ltd., have been registered with a capital of £1,250 in 5/- shares. Objects: To enter into and adopt a certain agreement, and to carry on the business of manufacturers and assemblers of and dealers in sugar cane-cutting and cane-topping machinery, etc. Subscribers: William G. Hodges, William Flower, Frank Dunne, Francis J. Owen, William L. Miller, Charles C. Edmund and James E. Moule. Reg. office: Mackay.

South Australia

Firms Registered.

J. W. Jones, implement maker, 193-197 Waymouth-street, Adelaide; proprietors: Harold Claude Jones, Percival Clide Jones, and Stanley Roy Jones.

Gibbs, Bright & Co., merchants, 27 Grenfell-street, Adelaide; proprietors: Alban G. H. Lord Aldenham, Hon. Vicary Gibbs, Herbert Cokayne Lord Hunsdon, John Arthur Gibbs, Brien I. Lord Cullen of Ashbourne, Hon. Gerald Henry Beresford Gibbs, Hon. Walter Durant Gibbs, Francis Amboor Keating, George Frederick Bell, James Edward Hayne, Hon. Sir Alfred William Meeks, Alfred Ernest Bright, Francis Garden Murdoch, and Maurice Antony Crutchley Gibbs.

Company News.

Chadwicks Ltd. have been registered with a capital of £25,000 in £1 shares. Objects: To carry on business, more particularly as merchants, engineers, suppliers and contractors. Subscribers: John Walker Fox, Ernest George Ey, William Andrew Thomas, Benjamin Ernest George Thomas, and Luther Whitfield Chadwick. Reg. office: 196 Flinders-street, Adelaide.

Transmission Appliances Ltd. have been registered with a capital of £5,000 in £1 shares. Objects: To carry on the business of mechanical, gas, electrical and water supply engineers, iron and steel merchants, brassfounders, metal workers, woodworkers, builders, and to deal in machinery, implements, rolling stock and hardware of all kinds, etc. Subscribers: Richard Amberton, Frank Arnold

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Green, Charles Anthony Abbott, Samuel Perry and Frank Tennyson Perry. Reg. office: Railway-terrace, Mile End.

Victoria

Robert Blair, ironmonger, Gamon and O'Farrell-streets, Seddon, has been registered under the Firms Act; proprietor: Ezekiel Rowe.

Gibbs, Bright & Co., general merchants, 34 Queen-street, Melbourne, announce that Robert Charles Reed has retired and that Frank Gardner Murdoch and Maurice Antony Crutchley Gibbs have become members of the firm.

Company News.

The Titan Nail & Wire Pty. Ltd. have been registered with a capital of £100,000 in £1 shares. Subscribers: Ivor Evans and Walter John Rose.

Cashmore & Russell Pty. Ltd. have been registered with a capital of £12,000 in £1 shares. Objects: To acquire the business of indentors and manufacturers' agents carried on in the Commonwealth and New Zealand under the style of Cashmore & Russell. Subscribers: William Yarwood Cashmore and Louis Archibald Russell.

Davies, Baird & Robertson Pty. Ltd., iron and steel founders, mechanical engineers, etc., have been registered with a capital of £50,000 in £1 shares. Objects: To acquire as a going concern the business carried on under style of Davies, Baird & Robertson, at Brunswick. Subscribers: Percival Naunton Davies and James Valentine Robertson.

Charles Walker & Co. Pty. Ltd. have been registered with a capital of £50,000 in £1 shares. Objects: To purchase the business carried on by Charles Walker & Co., machinery merchants, Lydiard-street, Ballarat. Subscribers: Charles Edward Walker and Amanda Magdalene Walker. Ruth Walker is also a director. Reg. office: Lydiard-street, Ballarat.

Western Australia

L. & R. C. Daw, storekeepers, Esperance, are opening a branch at Red Lake.

James Eastwood Ltd., Perth, have gone into voluntary liquidation. B. Copley, J. Forrest, and W. S. Bishop, of Perth, are the liquidators.

Travellers

In New South Wales.

Mr. C. Deutgen, of Grotjan & Co., Melbourne, has gone to Sydney with a full range of samples of tools, cutlery and general hardware from J. E. Bleckmann, of Solingen, and also the brassware from Joh. Jaeckle, Schwenningen, Wurttemberg. These samples will be displayed at Macdonnell House, 321 Pitt-street, Sydney, until about the end of February.

In Queensland.

Mr. Leslie J. Pain, of Bathurst House, Castlereagh-street, Sydney, will be showing full ranges of samples on behalf of his principals in Brisbane from February 5.

In South Australia.

Mr. James Henderson, of 204 Clarence-street, Sydney, is visiting Adelaide and Perth with a full range of samples on behalf of his several principals. He expects to be away for at least two months. His Adelaide address is Commerce House, Featherston-place, while in Perth he will be located at the Commercial Travellers' Club.

In Tasmania.

Mr. George G. Milne, of Beaucaire House, York-street, Sydney, representing Thos. Sanders Ltd., Birmingham, England, left during the month for Melbourne, Adelaide and Tasmania, and expects to be away for about six weeks.

In Victoria.

Mr. V. F. Treloar, of A. J. Van Dugteren & Sons, Australia House, Carrington-street, Sydney, will be visiting Melbourne from February 10 to March 10, occupying a showroom at Manufacturers' House, 312 Flinders-street. He will then go on to Brisbane. In addition to samples from the various manufacturers represented, Mr. Treloar will also carry open crystal ware stocks.

To and From Europe.

Mr. E. P. Edwards, of Bevan & Edwards Pty. Ltd., returned to Melbourne early in January.

Mr. and Mrs. George Russell, of Melbourne, accompanied by their eldest daughter, are leaving by the S.S. "Ascanius" for an extended tour abroad.

Mr. Howard F. Hudson, manufacturers' representative, of Sydney and Melbourne, is paying a visit to his principals in England, leaving Sydney on February 23 by the R.M.S. "Chitral."

Mr. J. R. Dickinson, a director of Ferrier & Dickinson Ltd., machinery merchants, Royal Exchange Buildings, Bridge-street, Sydney, leaves on a pleasure trip to Great Britain by the R.M.S. "Chitral" on February 28, and expects to be away about twelve months.

Mr. J. C. Davis, general manager of Holdsworth, Macpherson & Co., 252 George-street, Sydney, and chairman of the Hardware Association of New South Wales, leaves Sydney by the R.M.S. "Otranto" on March 1, on a business visit to Great Britain. While there his address will be care H. & A. Hawley, Finsbury Court, Finsbury, London.

Mr. Robert A. Balfour, eldest son of Sir Arthur Balfour, chairman of directors of the Eagle & Globe Steel Co. Ltd., and of Arthur Balfour & Co. Ltd., Capital Steel Works, Sheffield, England, who has been visiting the principal cities of Australia on a business trip, left Sydney for New Zealand by the S.S. "Marama" on January 14.

Leaving Melbourne on March 15, the P. & O. steamer "Narkunda" will have as one of her passengers, Mr. A. L. David, manager of Hawkes Bros. Pty. Ltd., of Geelong, Victoria, who is making an extended business trip abroad. He contemplates being away for about eight months, during which time he will visit manufactories in England and Scotland, the Continent, America and Canada. In addition to buying on behalf of the firm, the information gained by Mr. David should prove of service on his return.

To and From America.

Mr. E. G. Vaughan, of 352 Kent-street, Sydney, returned by the R.M.S. "Sonoma" on January 27 from a visit to his principals in the United States and England.

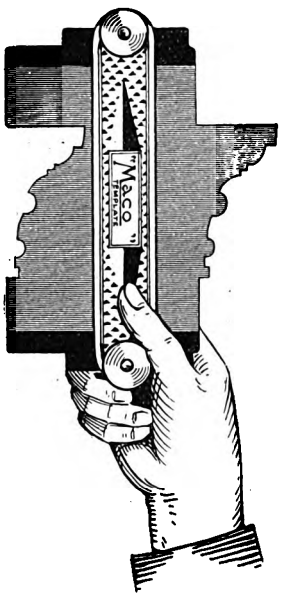
Mr. J. M. Tantum, manager of the foreign trade department of E. C. Atkins & Co. Inc., saw and tool manufacturers, Indianapolis, Indiana, U.S.A., is at present on a visit to this country, and intends calling on the firm's various agents throughout Australia and New Zealand. His headquarters are at the office of the company's representative, Wingello House, Sydney.

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Machinery

Adjustable Template.

A useful device, known as the "Maco" patent adjustable template, should prove valuable to many trades, and especially to drawing offices and pattern shops. This template makes it possible to obtain a profile of any irregular surface whatever, whether an intricate architectural design or casting or any other, in a few moments. The old methods of making templates are rendered unnecessary by means of this invention.



"The Maco" is composed of very fine strips of hard drawn solid brass, the thickness of each strip being .007 in., to ensure accuracy. The laminations are held in position by two special clamps, secured by thumb-screws and springs. The tension is such that these laminations are firmly held, yet adapt themselves to the precise shape of any portion of surface or design against which the instrument is pressed. As shown in the illustration, a male and female of a cornice is secured in a few seconds which would otherwise have required a considerable time to procure by the usual processes.

A British patent, the device is obtainable from Alexander Mair & Co. Pty. Ltd., of McEwan House, Melbourne. It is made in five sizes, from 2 in. to 12 in.

"No-Lag" Polyphase Induction Motor.

To meet the demand by smaller industrial consumers of electricity for a machine of moderate size, the British Thomson-Houston Co. have developed the "No Lag" polyphase induction motor. This is built in all sizes up to 300 h.p., and is simple of build and operation.

Outwardly and at work the "No-Lag" resembles the slipring motor, but the internal windings are quite different. It may be designed for unity or a leading power factor according to requirements, and has practically the same efficiency as a slipring motor. Owing to the high power factor, the K.V.A. input to the motor is from 13 to 27 per cent. less than for a standard induction motor.

The starting equipment required with the "No-Lag" motor is the same as that required with a standard slipring motor, while the starting torque, overload capacity, and other desirable characteristics are just as good. Operation requires no special skill.

This motor may be installed in place of any squirrel cage or slipring motor for use in any class of industrial undertaking, and is advantageous where first cost, simplicity and reliability of operation are important factors.

The Australian General Electric Co. Ltd., of "Mazda House," 93-95 Clarence-street, Sydney, supply the "No-Lag" motor.

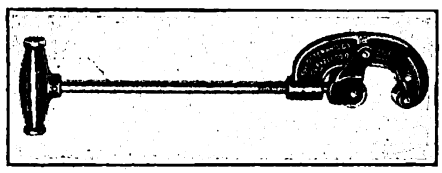
Micrometer Graduated to .0005 in.

The J. T. Slocomb Co., of Providence, R.I., U.S.A., have arranged to furnish the thimbles of any of their standard micrometers with 50 graduation marks on the bevelled edge instead of 25. This will enable a line-to-line reading to be made to one-half-thousandth of an inch, instead of to a full thousandth as formerly.

The advantages claimed for the new marking are that the matching lines are always directly before the operator's eye when holding the instrument in a natural position, and that he is enabled by the closer spacing to judge quarter-thousandths more accurately, as the latter measurement is represented by bringing the vernier half-way between two graduation marks upon the thimble.

Improved Pipe Cutter.

The Oster Manufacturing Co., of Cleveland, Ohio, U.S.A., are marketing an improved Saunders type of pipe cutter, which is made in two sizes. The smaller size covers a range of pipe from ⅛ to 1 in., while the large size cuts pipe from ½ to 2 in. diameter. It can be used for either hand or power work.



The cutter wheel is large, and instead of being directly above the two rollers, is slightly off centre. Thus, it is claimed, it will cut off pipe much quicker and with less pressure on the screw than would ordinarily be the case. The I-beam section on the handle gives the tool the necessary strength for power use. The handle is made of certified malleable iron, while the cutter wheel and the rollers and pins are made of high grade tool steel to insure long life. It is said that the tool will hack easily when turned by a mechanical drive.

New Wrench Set.

The Bonney Forge Tool Works, of Allentown, Pa., U.S.A., are marketing a complete set of wrenches for general repair work. It is known as set No. 650, and thirty high-grade carbon steel wrenches in a wide range of sizes and types are included.

The assortment includes double-end, engineers' wrenches, valve-tappet wrenches, and a special wrench for the reverse gear and brakeband adjustments on Ford cars.

The set has been specially selected for the repair shop and other duties requiring a complete set of wrenches. An individual wooden container carries the set.

New Tool Steel.

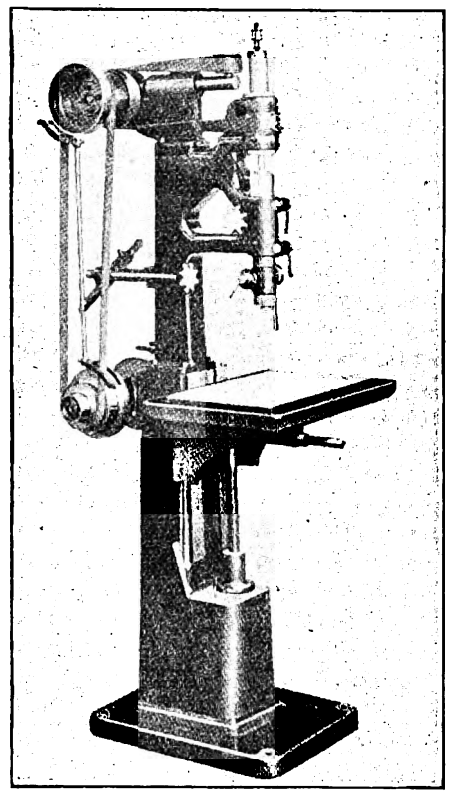
The Eagle & Globe Steel Co. Ltd., 379 Kent-street, Sydney, have received from their principals, Capital Steel Works, Sheffield, a sample of super alloy steel. This is a registered metal branded with the triple

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griffin, and is specially suitable for the production of lathe tools, drawing dies for metal tubes, press tools, taps, reamers, dies and punches and rollers for hard materials. Hardening can be obtained at from 780 to 900 degress C. At the high temperatures the steel expands slightly enabling it to be rehardened without the least deterioration.

Sensitive Drill.

The Merit Oil Equipment Co., of Cleveland, Ohio, U.S.A., have brought out a sensitive drill known as the "Demco" Model D.



In place of the usual sliding head the vertical adjustment of the spindle is obtained by means of a quill, in which it is confined endwise. The quill can be moved up or down and clamped in any position. The spindle is of high-carbon steel, and runs on ball and thrust bearings. It is counterbalanced by a coil spring enclosed in a shell at the top of the machine. In addition to counterbalancing the spindle, the spring keeps the ball-races in contact with the balls and takes up lost motion due to downward wear.

The machine is driven by two endless belts, one on the cone pulleys for changing speed, and the other for driving the spindle. Slack in the belt is compensated by a spring-tension idler pulley The table moves on the column, and is adjusted by a screw, operating through a crank and bevel gears.

The drill can be furnished in a floor type, or on a low base for bench mounting.

Safety Tapping Chucks.

Three sizes of safety tapping chucks have been placed on the market by the Wahlstrom Tool Co., of 5524 Second-avenue, Brooklyn, N.Y., U.S.A. The new chucks are known as the Nos. 201, 202 and 203.

The No. 201 is a special tool for taps up to ¼ in.; the No. 202 is for taps from 3-16 to ⅜ in., and the No. 203 is for taps up to ½ in. in size. The chucks are particularly designed to provide positive drive, bottom-hole tools.

They can be set to a tension at which they will release the taps to prevent breakage. They can also be used for driving studs. The small chuck is composed of four principal sections, while the No. 202 has three. No. 201 has a top cover that takes the thrust of the mainspring and can be used for the setting of the tension. It has a scale that can be used in connection with the arrow on the tension sleeve to indicate the degree of tension. The sleeve adjusts the spring tension by turning to the left, using the arrow as a starting indicator. The lock-nut is used to tighten the sleeve. The bottom section holds the tapping or stud driving jaws.

No. 203 has a top cover which takes the thrust of the main spring. It also has an arrow for use as a starting indicator for the scale on the body. The body is made of two shells, the inside shell holding the main spring and ball sockets, and the outside being used to adjust the spring tension?

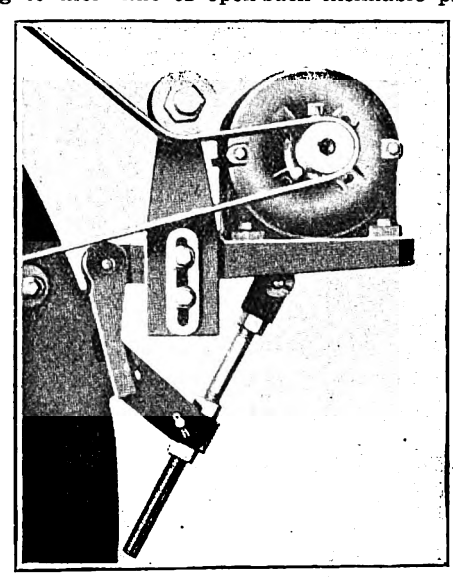
To adjust the small chuck the tap is inserted in the jaws and the lock nut is loosened. Starting at the arrow, the tension sleeve is turned until the tap is actually biting. The lock-nut is then turned in the opposite direction to fix the sleeve at the desired tension.

On the large chuck the tap is inserted and the tap cover is held while the set-screw in the outside shell is removed. Starting with the outside shell turned back to the left as far as possible, it is turned to the right until the tap is actually biting. The set-screw is then replaced and tightened to hold the shell in place. When the tap hits the bottom of the hole, the extra tension on the chuck forces out the three-ball clutches in the body and the tap stops, even though the spindle is still revolving. When the chuck is put into reverse the balls drop back again into the clutches.

These chucks can be used on any radial driller that has a reversing feature.

Individual Motor Drive for Presses.

The Federal Press Co., of Elkhart, Ind., U.S.A., have adopted an individual motor drive, suitable for fitting to their line of open back inclinable presses.



The motor bracket can be easily attached to the back of the uprights, and can be made to take any motor of standard make. Transmission is by leather belting. Since the bracket is attached to the part of the press that is adjusted for position, the length of the belt remains the same, in any position of operation.

The bracket can be adjusted so that it will be level when the press is in an inclined position.

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Publications Received

Victorian Railways.

Through a special issue of the "Government Gazette," the Victorian Railways Commissioners have published "By-law No. 282," which sets out their revised rates for the carriage of passengers and goods all over the State railways. Following a summary of contents and detailed index the division is six-fold: (1) General regulations; (2) suburban fares and regulations; (3) country fares and regulations; (4) parcels and luggage rates and regulations; (5) interstate live stock regulations; and (6) a distance table from Melbourne.

British Motor Trade.

With the compliments of the Society of Motor Manufacturers and Traders Ltd., of 83 Pall Mall, London, S.W.1, comes a report on "The Motor Industry of Great Britain" for 1926. A book of 152 pages, 8½ x 5½, in paper covers, it presents under various headings the development of the motor industry throughout Great Britain within recent years. Tables and graphs are freely used, and part four gives the "Customs Tariffs of the World" as applied to motors and accessories. A shorter section deals with motor trade organisation in the United Kingdom and elsewhere, giving names and addresses of the various associations and showing the names of the leading office-bearers. As a first attempt to provide in handy form an account of the British motor industry and its ramifications the little volume deserves a word of commendation. It is well arranged and well-printed.

Engineering Standards.

From the Australian Commonwealth Engineering Standards Association we have received five further pamphlets, four of draft or tentative specifications and one giving the specifications and tests finally adopted for Portland cement. The other cover (1) genuine dry white lead and genuine white lead in oil; (2) turpentine and mineral turpentine; (3) linseed oil---raw, refined, pale boiled, boiled and for varnish; and (4) metallic resistance materials for electrical purposes.

A statement of the "Progress of Work" has also been issued by the secretary, Mr. W. Rayner Hebblewhite. This shows just how each subject taken up by the association stands at the end of 1926 from (1) decided to undertake the standardisation to (8) published as standards. The length of the list—seven pages of foolscap—will astonish some people as to the extent and variety of the work actually undertaken.

Founded in 1922, the Association has its headquarters at Macleay House, 16 College-street, Sydney.

Empire Marketing Posters.

An exhibition of original posters designed for the Empire Marketing Board was held at Burlington House, London, last year, and the designs finally selected for printing are now being exhibited in different large cities throughout Great Britain. The object is to visualise "the realities and the romance of the commercial geography of the Empire, and to bring home to the people of the United Kingdom how ceaselessly and how variously their fellow citizens in five continents are at work producing and distributing their food."

These words are quoted from a catalogue of the exhibition which has come to hand from the secretary of the Empire Marketing Board (Mr. S. G. Tallents), 2 Queen Anne's Gate Buildings, London, S.W.1. Every part of the Empire, including Australia and New Zealand was represented in the posters displayed, cattle-raising and vine-growing being the Commonwealth subjects and dairying and sheep raising those of the Dominion. The scenes of production numbered twenty altogether, while there were five scenes of marketing and six other subjects. Most of the pictures shown were the artists' originals.

Three-quarters of a Century.

Established in 1852 the business now conducted by W. A. Sparrow & Co. Ltd., merchants and shipping agents, of London and Liverpool, has completed seventy-five years of life. To mark the occasion the directors have sent out "with every good wish for Christmas and the New Year" an illustrated booklet summarising the history of the firm and business. The founder, Mr. William Alfred Sparrow, retired in 1894 and died without issue in 1910. When in 1887 his nephew, Mr. Alfred Edward Bidmead, was taken into partnership, the firm name became W. A. Sparrow & Co., and in 1920 the present private limited liability company was registered to take over and continue the growing business. Mr. A. E. Bidmead, the chairman of directors, joined his uncle in 1869, and all the other directors have been in the business from boyhood, Mr. Arthur P. Bidmead (son of the chairman) since 1896, Mr. G. E. Page since 1887, Mr. W. G. Bolton since 1890, and Mr. R. P. Ellis since 1897. Messrs. A. P. Bidmead and G. E. Page are the joint managing directors of the company and Mr. Ellis is the secretary. For a time the outside interests of the firm were largely represented by the United States, but now Australia, New Zealand and other parts of the Empire occupy most of their activities. The headquarters of the company are at 14 St. Mary Axe, London, E.C.3, while the Liverpool branch is located at 28 Chapel-street.

Agents and Agencies

E. J. Todd & Co., of 154 Castlereagh-street, Sydney, are Australian representatives of J. W. Ward, tool manufacturer, of Sheffield.

P. H. Clark Ltd., manufacturers' representatives, have removed from Wynyard Buildings, Carrington-street, to Aberdeen House, 304 Clarence-street, Sydney.

The Gippsland & Northern Co-operative Co. Ltd., of 492 Flinders-lane, Melbourne, are agents in Victoria for Bamfords Ltd., Uttoxeter, England, who are makers of oil engines.

Mr. Leslie J. Pain, of 209a Castlereagh-street, Sydney, who for some years has represented in Australia W. H. Briscoe & Co. Ltd., Birmingham, manufacturers of aluminium domestic small wares, will in future include New Zealand in his representation.

Nelson & Co. Ltd., of Broughton House, 47 King-street, Sydney, have been appointed sole Australian agents for Foss Smergelskivefabrik, of Oslo, Norway, manufacturers of silicon carbide, corundum and emery wheels, blocks, etc. They also specialise in saw-sharpening wheels.

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Electrical Goods

Buyers' Notes for Retail Dealers

Sydney

William Adams & Co. Ltd., of 175 Clarence-street, Sydney, from the British Insulated & Helsby Cables Ltd., carry stocks of wires and cables. These electrical specialities include V.I.R. insulated, also flexible, wires and cables; braided aerial cables, all classes of winding wires, and the "Helsby" twin wiring system. Special, too, are "Kembla" cables, cotton covered wires, bare copper wires and cables, round and square rods, strips, busbars and commutator segment—all produced by the Metal Manufactures Pty. Ltd., Port Kembla, New South Wales.

The Australian General Electric Co. Ltd., of "Mazda House," 93-95 Clarence-street, Sydney, introduce the Edison electric automatic toaster of conveyor type, designed for intermittent or continuous service. By turning on both switches the toaster is pre-heated for five minutes, during which the two dampers which exert heat control are closed. For continuous service these dampers remain closed, but not for intermittent use; damper control instead of heat reduction of the units is a prominent feature among the improvements in the toaster. Any slice of bread placed on the conveyor in fifteen seconds becomes just the right colour and crispness, both sides correctly toasted without charring the surfaces or burning the edges. Through a glass panel the toast, which is automatically delivered for serving, is always in sight. Standing on four ball feet, the toaster is 30 in. high by 19 in. wide, by 24¼ in. deep; its finish is white vitreous enamel nickel trimmed.

In numerous capacities are bake ovens for commercial, ship and domestic use, heated by electricity, a form of hygienic and rapid baking, which is swiftly gaining favour. For chilling food comes the new "G.E." electric refrigerator, which generates a dry coldness of atmosphere which retains the natural flavour of the food. The correct range of temperature—between 36 and 48 degrees—is kept in the cabinet by the chilling unit. Together with refrigerant and oil, all moving parts are hermetically sealed within a case of drawn steel. The heat of the condenser coils dissipates away from the cabinet. "G.E." welding electrodes, a one-man arc wielding set, and the "Sprague" electric hoist are among the other lines handled by the company.

The Australian Westinghouse Electric Co. Ltd., of 11 Castlereagh-street, Sydney, feature "Westinghouse" lamp bulbs with screw or bayonet bases for home lighting, including frosted, all white, flame tinted, bowl enamelled and daylight. For commercial lighting comes the "Sol-Lux" with or without reflector and adaptable to high or low ceilings, dark or light ceilings and walls, and to small or large areas; and there is a "Sol-Lux" kitchen unit with outlet and switch. Special for generating power for farm machinery and lighting is the Westinghouse 32 volts light and power plant.

In fans is the 10 in. "Home" fan in ivory tinted enamel, with nickelplated trimmings, and also enamelled matt black; the "Whirlwind" non-oscillating, a 12 and a 16 in. for offices and large rooms and spaces; and there are 32, 36 and 56 in. ceiling fans; a tandem gyrating ceiling fan, and exhaust fans. The electric iron which automatically retains uniform heat, retains popularity. An electric "turnover" toaster browns the toast without touch of hand; and a waffle iron handily makes waffles at the table. The "Senior," "Junior," "Grey Junior," and "Black Junior" cabinet ranges, the "3-19-B" and "2-19-B" are all automatic for "clockwork cooking." The newest "Console" cabinet range is less expensive, and the "515" range is for light demands and makes an ideal auxiliary, and, like the preceding, is non-automatic.

With shape fitting most fireplaces and finished in heavy bronze to harmonise with furnishings is the "Solar Glow" radiator, and on round base and swivelled for heat-directing, is the "Cozy-Glow" type for general home use. Percolators with the "Klixon" automatic thermostat, are in several plain and panelled designs including Grecian Urn and a special set, all with cream and sugar on a tray. A tumbler water heater is self sterilising and has a serviceable switch on part of the heater.

Brandt Bros. Ltd., 236 Pitt-street, Sydney, stock the "Beaby" electric iron, which is nickelplated, has heel rest and comes complete with 9 ft. of cord and adapter, and is a good storekeepers' line. In electric lamp bulbs is the special "Brandt" lamp in all candle powers, in every size in ½ watt—a thoroughly reliable line. Indirect light shades are in various colours, designs and shapes complete with oxidised treble chain and fittings.

"Hotpoint" domestic appliances, such as grillers, toasters, hot plate, kettles and commercial heaters, are available at usual shopkeepers' discount. Special in electric ovens is the "White Cross" finished black and nickel, with two elements and oven and two boiling elements. Oscillating and fixed electric fans 8, 10 and 12 in. in favourite brands are available, including the "Polo Cub" diminutive in black and brass for desk use. Special electric hall light standards and shades and small electric boudoir table lamps with shade and flexible adapter are available. New is a line of bronze figure electric table lamps, each complete with lamp flex adapter. Electric radiators available are the "White Cross" and "Hecla" makes.

Available is the British made B.V.C. "Turbinet" electric vacuum cleaner of tubular shape, which is readily portable and reduces dusting to a minimum. This firm are New South Wales distributors of the "Marathon" torches and batteries, whose unit cells being pressed into one piece eliminate source of trouble through solid joint, besides imparting longer life. In stock are radio and all other batteries and refills, including the "Ever-Ready."

The British Every-Ready Co. Ltd., of Hoffnung's Chambers, 163 Pitt-street, Sydney, have a large assortment of "Every-Ready" torches and lamps, and for these all batteries, refills, dry cells and radio cells, made in Australia. Noteworthy are "Spotlight" bell-mouth torches with 2¼ in. reflector of plain glass and with 3-cell torch battery. The safety torch of brass, finished best nickelplate, has 2-cell dry battery. Pocket lamps are in standard series in various sizes of bulls-eye lens and with leatherette, real leather or nickelplated all over case, according to number in the series. The "Popular" series, too, has a wide and interesting range. In torches are fibre models in de luxe patterns, and there are

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numerous handled models of hand lamps in teak or mahogany case; combined hand and reading lamp; a Morse signal lamp in walnut case, whose instantaneous brilliant flash is visible several miles away; folding handles and belt clip permits its use anywhere and in any position. A night light has opal glass globe which diffuses subdued light.

The British General Electric Co. Ltd., of "Magnet House," 154-56 Clarence-street, Sydney, report new arrival of ample supplies of cables, wires and flexibles from their works at Southampton, England, all made to Association grade. British made "Freezor" fans are in wall and table models, including the "Gyro" fan, which oscillates horizontally or vertically; revolving and stationary ceiling fans, and exhaust fans in shield shaped screw plate. "Osram" lamps remain in favour, including in their comprehensive range of gas-filled and vacuum lamps the "Osglim" letter and figure lamp for advertising, house numbering and direction indication; also the lighting type which replaces wax candle night lights and serves as indicator light on switchboards and in cinemas. There are also tubular electric lamps; "Huntalite," and candle lamps, plain or twisted flame; traction lamp, "Axial" lamp; "Striplite" vacuum lamps; white "Osram" and colour sprayed traction vacuum lamps. For attractive shop window lighting is the "Gecoray" lighting system with correct reflectors, including designs to concentrate light on some special display, or for flood lighting the entire window. "Osram" valves are available for every broadcasting and listening-in purpose, also "Gecophone" receiving sets and accessories for these.

John Danks & Son Pty Ltd., of 224-30 Pitt-street, Sydney, carry stocks of Fuller's "Sparta" batteries for wireless in which an agency for New South Wales is held. These batteries come in 4-volt 20, 40 and 60 amperes in strong bituminous case, with plenty of space for acid, and are of reliable English make. "Elektromekano" motors from ½ to 10 h.p. are available at reduced prices. Water-heaters, kettles, round grillers, saucepans, hot plates and all other "Hecla" electric appliances in handsome finish and of proven service are fully in stock.

New is the "Eltron" electric immersion heater with cord and plug which, from all electric fittings to which it adapts direct, heats and boils liquid in a few seconds; it must be immersed before the plug is inserted, and should be detached before the immerser is taken from the boiling liquid. McClary's electric ranges in various sizes, including cabinet design, remain a favourite line. New is the "Armstrong" table stove, which cooks three things at one time—waffles, too. Its tilting plug needs no pushing or pulling to make instantaneous heat control: it just slips on and off. This is a square shape stove, with griddle, toaster, egg rack and cups, broiler and waffle mould, and its finish is snow-white vitreous enamel. Electric torches are in latest styles, black with bell-mouth lense heads. All conduits are in stock, and table lamps in many attractive patterns form a feature.

"Regina' and "Apex" vacuum cleaners are stocked. The first named is an agency from the Regina Corporation, U.S.A., which attaches to any socket, exerts strong suction, is well fitted, and has brush and cord complete. The "Glow Log" heater in various sizes and the "Savage" washer are among other electric appliances stocked by the firm.

Thomas A. Edison Ltd., of 364-72 Kent-street, Sydney, from the Edison Storage Battery Co., Orange, N.J., U.S.A., feature the Edison steel-alkaline storage batteries. In alphabetically numbered types these come in six sizes in rated capacity of 150, 187.5, 225, 300, 375 and 450 ampere hours for train lighting service and automatic train control.

Special also is the "Ediphone," consisting of the "Electrip Ediphone," which is used by the dictator; the "Electrip Transophone," which the typist uses for the transcription of the cylinders, and the electric saving machine, which eliminates the voice recorded on the cylinders, leaving these ready for use again. Twelve cylinders, celluloid indestructible correction slips, correspondence files, and all necessary flexes and fittings complete the requirements for this office innovation. Other specialities are alternate current rectifiers, house lighting controllers, fan motor outfits, and kinetoscopes and original films.

Farleigh, Nettheim & Co., of 80 Clarence-street, Sydney, supply to storekeepers all "Hotpoint" electrical appliances.

W. S. Friend & Co., of 113 York-street, Sydney, offer the new "Record" electric vacuum cleaner which, working from any socket, with all its attachments, satisfactorily cleans everywhere desired. Electric irons in stock are the "Hotpoint," "Superior" and the "Falco." Winchester torches include the new focussing style, and for these are bulbs, all accessories, spare parts and batteries available.

"Hecla" goods—grillers, combination cookers, plate warmer, water heater, griller stove and ovenette—are stocked, including the "Hecla" connecting plug of best moulded heat-resisting insulation, which can be used on flat or round pins of varying diameters and centres. The handsome "Dux" electric bath heater, with container of white glazed porcelain, and piping and shower of nickel; and in three sizes the water jug, similarly named, are stocked. In this category the "Eltron" electric water boiler, with cord and plug, whose immersion end in shape a bottomless cup, inserted in the utensil containing liquid, quickly brings it to the boil.

Table and wall fans of stationary or oscillating type, ceiling fans of revolving type with guards, ceiling fans in three or four-blade type, and four-blade exhaust fans in round frame, are available. "Waratah" radiators are on offer in all the handsome ring, box, panel and "Twin Fire" types characteristic of that make which includes the No. 11 "Pedestal," and No. 12 "Superior" pedestal round types, which serve the dual purpose of heating and light cooking. "Cosmos" fires in stock is the No. 883 for general heating of small areas, and the small size two-bar general heater No. 875 of a cornered ornamental shape.

Grimley Ltd., of "Monarch House," Broadway, Glebe, Sydney, have a new line in electric irons, nickelplated, with cord and adaptor, on special stand; Philips electric lamps, including the opal (argenta), are in full range. Winchester electric torches are in all types, including the latest. Special are "U.S.L." batteries for radio and general use. "Columbia" and "Red Seal" dry 6-valve batteries, and "Columbia" 45-valve batteries for radio, are available.

Hamilton & Baker, of 302 Pitt-street, Sydney, stock the "Love" radiators in pedestal, panel and ring type of pleasing appearance; an exceptionally large pedestal radiator with octagon pedestal, and another in unique design, whose reflector and frame are spun in one piece; all have cast iron frame or pedestal, and are variously finished in modern treatments.

The "Westinghouse" table stove cooks in position on the table, and from the same makers come a waffle iron and an automatic iron which maintains perfect ironing temperature. "Hotpoint" appliances are in full range, together with Westinghouse desk and wall and ceiling fans, including the 8 in. "Whirlwind." All "Hecla" goods, Phillips, Mazda and Brown lamps, are in full range.

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Special are the "Cossor" radio valves with four exclusive features and all electrical and biograph supplies. A sole agency for Australia is held for the "C. & W." latest model motion picture projector made by Cummings & Wilson, 29 Alberta-street, Sydney. Its mechanism is totally enclosed in plate glass and its finish is a glimmering crystallised black. New and special and also for sole Australian distribution, is the "Precision" film winder of best materials, whose parts are accurately machined.

D. Hamilton & Co. Ltd., of 283 Clarence-street, Sydney, have in stock seasonal fans by Robbins & Myers Co., Springfield, Ohio, U.S.A. Except the weightier 8 in. fan, their frames are made of light drawn steel. While thoroughly agitating stale air, they are without objectionable hum and do not disturb by whirring the quietness in the office, bedroom or sickroom. They come in several models for desk and wall—alternating-direct, alternating, and direct current—oscillating or non-oscillating types, handsome in appearance. Style "K," alternating current ceiling fans, and most of the types, have central attachment for light bowl, which operates by pull switch, but in the "490" a wall switch controls the light, while a wall regulator controls the fan. Style "B" is a direct current ceiling fan, and there are six-blade alternating current porthole ventilating fans for removing smoke and odours.

Hill, Magill Ltd., of 133-35 York-street, Sydney, feature the new electric iron, the electro-plated "Grossag" of 240 volts, with insulated handle and thumb rest button, heel rest of doubled wire rod, and complete with cord and plug—a cheap, good iron. Winchester torches, the new focussing type inclusive, and lamps, lanterns and parts, are available for these. On oak stand are double-decker square electric toasters in e.p. and s. finish. Special, in individual carton, is the cheap, plain "Hagor" electric lamp in 50, 35 and 32 c.p. All kinds of switches and supplies for electricians are in stock.

S. Hoffnung & Co. Ltd., of 163 Pitt-street, Sydney, accord prominence to their own "Protector" brand of electric iron, which is guaranteed for two years; it has plate-shape heel rest, is heavily nickelplated, and has stout black insulated handle. New arrivals are the "Nichro," with similar heel rest and with round red thumb rest in precise position; also the "Grossag," which is a cheaper iron with wire rod heel rest and supplied with cord ready for use. All "Universal" and "Hecla" electrical appliances are in stock. Special are the "Holder" electric fires in eight distinctive and handsome patterns, richly ornamental, in 9 and 10 inch reflector and 900 watts capacity; and a unique design with 12 in. reflector, whose 1,500 units capacity can be reduced by one half with the same unit.

Holdsworth, Macpherson & Co., of 252 George-street, Sydney, offer newly unpacked stocks of all the latest electrical accessories from British and American markets. Winchester flashlights are available in their half-dozen styles and all sizes in these, together with all batteries and spares. "Ever-Ready" pocket lamps are available in complete range; the attractive adjustable "Greist" lamps are in satisfactory range; and "Westinghouse" fans in all ceiling, desk and bracket types, which act powerfully but silently, and have beauty of finish and form, are available. Included is the "Home" fan in old ivory or black finish, which delivers the breeze in any direction desired.

Among "Westinghouse" products the automatic iron, the "Cozy Glow" adjustable radiator, and automatic electric ranges, are notable. "Hotpoint" electric home appliances from "Radiant" grill to curling irons and "Utility" ironing set, are stocked. A useful electrical aid in table crockery is the "Armstrong" table cooker, which does three dishes simultaneously. All radiators under the "Waratah" brand are available and the "Hot Rays" electric fires, also of Australian make, are shown in different types and sizes. Electric vacuum cleaners include the "Air Maid," "Hover," "Liberty," "Universal" and "Premier." All are of the bag type and each possesses some special features of excellence.

W. Kopsen & Co. Ltd., of 70-72 Clarence-street, Sydney, supply for shipboard use or for use on terra firma, all electrical goods the trade requires.

Martin de Launay Ltd., of Clarence and Druitt-streets, Sydney, introduce the new "Uran" spiral filament electric lamp, which is practically unbreakable. Instead of the usual one-piece shank, the filament in the large lamps is supported on a single central wire which leaves the filament unaffected by shock or vibration. Bronze statuette electric table stands include several pleasing subjects.

"All "Hecla" electrical appliances, "Dux" water-jugs with corded element inserted above the handle;; "Dux" bath heater, "Falco" electric irons, breakfast cookers and electric stoves, "Universal" vacuum sweeper with all attachments and thread-catching self-cleaning nozzle, and all electrical wiring installation supplies are in stock. From their principals, the Falkirk Iron Co. Ltd., the "Falco Inducer" is about to arrive. This new method is expected to revolutionise electric cooking. Placed on a table and connected by plug to lighting circuit or lampholder, the "Inducer" is ready for rapid frying or boiling. It is neatly oblong, and remains cool and unaffected by the heat which concentrates upon the special cooking utensils which go with it as part of the outfit.

Mason Bros. Ltd., of 102 Clarence-street, Sydney, stock a full range of Winchester torches, including the latest types. Batteries, parts and lenses for these are also available.

Noyes Bros. (Sydney) Ltd., of 115 Clarence-street, Sydney, as sole Australian distributors of "Creda" electrical goods introduce the "Economy" series of kettles in five sizes. Swan-neck spouts in extra heavy bodies on feet and with shaped bar handle and large-diameter knobbed lids, are special features among the improvements. Connector and one fathom of flexible cord completes each kettle. New, too, in similar wattage, capacities and number of elements, and either copper or nickelplated, is the "Protector" series, which actually are "Economy" kettles provided with the "Creda" patented protector device, contributing to their length of life, reliability and freedom from trouble. This device cuts off the current if the kettle boils dry. A tiny fuse melted by the excessive heat, releases a bolt attached to a switch of ample capacity which, by a compression spring, is made to break the circuit. When the operation is completed, the words "Boiled Dry" show in a glass pane in the base of the kettle. The "Creda" afternoon tea kettle of 2½ pints capacity and nickelplated, can be fitted with a "Protector" device. Also new and available toward the end of February is the "Creda" "Glow-bar" fire, whose element consists of a glowing rod made of a special composition.

H. Rowe & Co., of 68 Druitt-street, Sydney, report continuous arrival of new supplies of electrical fittings and wiring goods. A new Australian agency is for Dorman & Smith's fuses. "Venner" time switches maintain their favour and go freely from stock. Other sole Australian agencies are held for the Jackson's Electric Stove Co. Ltd., and Evershed & Vignoles Ltd. "Hecla" goods are in full range, and a useful addition to stock is the "Eltron" electric immersion water boiler, which heats a hundred cups of water at nominal cost.

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Smith, Sons & Rees Ltd., of 30-32 Wentworth-avenue, Sydney, offer the newest "Wooton" portable electric lantern and charging system. In various models the lanterns are complete with accumulators and bulbs, are flattish square in shape, solidly pressed without joint from 18-gauge aluminium, finished polished or matt aluminium or black enamel. The beam from the specially designed bulb can be focussed into a broad field of light illuminating objects well over one hundred yards away. The lantern is small, and in six models with fold back handle, safety belt hook or shoulder strap, according to model, and is suitable for every possible use to which lanterns are put.

Standard Telephones & Cables (Australasia) Ltd., of 192-94 Castlereagh-street, Sydney, stock all the electrical appliances, long distance and house telephone systems in which the firm specialise.

Swans Ltd., of 304 Pitt-street, Sydney, feature Philips' lamps, gas-filled, clear glass, opal (argenta) and daylight in 40, 60, 75,, 100 and 150 watts, red, and night light pilot lamps with metal filament. . Shades are 9 in. opal. Marble base switchboards are for 5 and 10 amperes, and in 10 amperes, also Pritchett wall switches. H & H rotary snap, nickel, are non-inidcating, S.P. 3 amperes; indicating S.P. 3 and 5; D.P. 5, 10 and 20 amperes; snap porcelain non-indicating S.P. 3, and D.P. 10 and 20 amperes; in 1 and 3 amperes are three-way non-indicating, also H & H rotary with plugs; with switch and plugs, English. English brass tumbler and two-way brass tumbler; Oxtumbler and all china tumbler switch; also one-way express pear switch cord grip. Wall plugs of various kinds include the Magnus pin, duo and trio, and Magnus cord connectors. All other appliances for electrical installation; fuses, round porcelain, chamber type (English) and detachable; fuse wire; junction boxes and screwed fittings; earth clips; English, S.C., and batten bayonet holders; screwed fittings, ½ in. conduit, grub screw fittings with brass screws, and so on, are freshly in stock. Wire-taped and braided, and twin class, lead covered V.I.R., twin flexible cord, glace cotton covered, and cab tyre flexible twin, is available. Semi-indirect fittings with canopy and chain; for bathrooms opal units with ceiling flange, and also with canopy and fittings are in various patterns, shapes and decorations.

W. G. Watson & Co. Ltd., of 279 Clarence-street, Sydney, introduce the new "Universal" electric oven-cooker, tubular in shape, with special flatted dome lid, flange-fastened by thumbscrew at either side. The overall handle has central insulated handgrip. It does all kinds of cooking and enough for an average family meal, and does it in two separate containers simultaneously. As the cooking is largely done by stored heat, it is economical in operation. The cooker, being readily portable, hot food can be served direct from it at picnic and outings. Operating from any electrical outlet, this cooker uses less current than an electric iron.

Among electric irons are the "Universal" wrinkle-proof adjustable voltage iron, one with tip-up heel rest, and the "Reliance," which is a new guaranteed iron in gunmetal finish. Electric ranges have full automatic control. A vacuum cleaner has its attachments packed in a pocketed cretonne apron. Round and square-shape waffle irons have ebonised handles. "Cosmos" lamps remain a sole agency. Efandem "T.E.C." hand lanterns, torch cases, pocket lamps, electric house bells, dry batteries, and other electrical appliances are available. For trade uses are electrical coffee mills and meat choppers provided with individual motor. Newly landed is a wide variety of lighting bowls in new shapes and exquisite designs of glazed finish pearloid glass, whose dainty decorations include surround at the top, of vine leaves and grapes and single vineleaf on the bowl bottom; also in imitation marble with etched designs.

The Weldon Electric Supply Co. Ltd., of 352 Kent-street, Sydney, specialise in wire and accessories for wiring homes, and the "Kye" lamps, made by Kye Ltd., London, for whom a sole Australian agency is held. The "Kye" lamp carries a printed guarantee against defect in manufacture, to protect the final purchaser. A sole Australian agency is for the Veolton Battery Co. Inc., Brooklyn, U.S.A., for "B" radio dry 45, 22½ and 4½ volt batteries; and a New South Wales, Queensland and Victoria agency for the "Veolton" batteries. From the General Cables Manufacturing Co., Leatherhead, England, are all wires and cables; V.I.R., lead covered, and rubber covered flexible. For Australia, too, is the agency for the Dudlo Manufacturing Corporation, Fort Vine, Ind., U.S.A., consisting of enamelled magnet wires and full range of winding wire. Another agency from the American Bosch Magneto Corp., Springfield, Mass., U.S.A., covers a large and powerful six-tube radio receiver, with exceptional tonal quality, in cabinet of finest wood, with satin bronze finished metal fitments. Radio goods include receivers, valves and other lines, and there are "Thermoleo" heating products and various appliances for tradesmen.

Melbourne

Brooks Robinson & Co. Ltd., of 59-65 Elizabeth-street, Melbourne, are suppliers of all classes of lamps and materials for either home or commercial lighting. The range of metal and glass fixtures is very large, enabling the buyer to harmonise his lighting arrangements with any furnishings, or, in the case of window displays, to obtain the best possible effect.

In table standards a number of excellent styles and designs are on view in the showrooms, suitable for bedroom or library, appropriately finished in various shades. For domestic use the firm handle Hecla brand goods such as toasters and grillers, kettles and kitchen appliances of all kinds.

McClary electric cookers from Canada are available in the various models, and several excellent stoves from the well known Carron Co. of Scotland, are worthy of inspection.

The British General E'ectric Co. Ltd., of 590 Bourke-street, Melbourne, stock all the electrical appliances and materials made by the British house of that name. Under their "Magnet" brand a complete list of household and domestic goods is available, of all-British production. One of the more recent appliances so branded is the H 5700 cooker. Raised on legs to a convenient height, a white enamelled crown plate is fitted over the oven. Two open coil boiling plates and a griller or toaster are also provided. Drip pan and runners can be entirely removed for cleaning. No. H5670 is an electric cooker suitable for from four to six persons. It is fitted with grid shelves, baking tin and grill bars, and will perform every possible cooking operation. A feature is the easiness of access to the elements. A few wing nuts may be unscrewed for this purpose, and the body is then left entirely free for cleaning.

Other useful kitchen articles are kettles, saucepans, toasters and grillers. A useful cooking plate is designed to take the place of the old gas-ring. It may be removed to any room, and is used for boiling, frying and similar operations. The "Magnet" iron is guaranteed for three years. Finished throughout in heavy nickel-plate, it is well-constructed and designed for comfort in use. In addition to the ordinary patterns, a travelling iron is

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obtainable, with adjustable connector, enabling its use on any voltage from 100 to 125 and from 200 to 250.

In reflector fires, or radiators, several popular models are made, while the pedestal heater is a convenient and simple type. A fine range of electric fires is offered, giving a wide choice in designs and finishes. Many of these fires are most attractively turned out, several canopy models being suitable to harmonise with almost any colour of furnishings. No. H.O. 556A is a new model in Florentine bronze, which should find favour for the drawing room or lounge, while others are available in either brown, grey, blue, ruby or green.

"Freezor" electric fans are fitted with swivel and trunnion movement, which allows the air direction to be altered in a few seconds. A switch in the base gives three speeds and an "off" position. They are suited for either desk or wall mounting. The oscillating type move continuously from side to side over any arc up to 110 degrees, and give greater air disturbance for the current consumption than adjustable models. "Magnet" gyro fans embody many special features. They give a big range of movement, and the degree of oscillation can be easily varied. It is claimed that the total area swept by the gyro fan is very much greater than by an ordinary oscillating type, with the same consumption of current.

John Danks & Son Pty. Ltd., of 391-403 Bourke-street, Melbourne, have a large display of electrical goods of all kinds.

McClary ranges are on view in every model, from the small domestic type to the heavy duty stove for use in hotels and institutions. The firm stock materials and equipment for all kinds of electric installation, as well as motors and transformers in every necessary power and size.

The various utensils and appliances made in Australia under the "Hecla" brand are always kept on hand. These goods are well known and cover practically all household requirements. An American line, the Manning-Bowman, is also recommended for buyers handling high-grade table and kitchen appliances. Coffee percolators, toasters, grillers, kettles, waffle irons and radiators are all on view in this make.

All types of vacuum cleaners are available, including the "Record," an efficient cleaner, selling at a moderate figure.

British lamps of the "Osram" brand are supplied in all the usual types, while several special lamps are designed for particular uses. The "White Osram" is rapidly coming into favour on account of the softness of its light. This is a standard, gasfilled lamp, the bulb of which has been subjected to a spraying process. The spraying gives uniformity in colour and density, and although a slight absorption of light takes place, the total elimination of glare makes this kind of light pleasing to the eyes. For decoration purposes coloured lamps are supplied of "Osram" make, and may be ordered in white, red, orange, yellow, blue and green.

Wireless Supplies and equipment have been added by the firm to their electrical department, and they carry all the necessary apparatus. As distributors of the Splitdorf radio sets, they specially recommend a compact 5-valve set in this brand. It is powerful enough to bring practically all Australian stations into range, and is sold complete with all accessories, including loud speaker.

Falk, Stadelmann & Co. Ltd., of 380 Lonsdale-street, Melbourne, carry a large range of electrical appliances, among which domestic articles are prominent. "Ideal" brand irons, kettles, toasters, coffee percolators and similar lines are of good quality and finely finished. A useful little utensil is an electric egg boiler. This is a complete unit, consisting of a saucepan and removable holder for either five or seven eggs, enabling the eggs to be inserted or withdrawn without danger of breakage or burning of hands. The saucepan is lipped, and may be used as such if required.

A compact griller and cooker is so constructed as to permit a complete meal to be prepared for a small family on the one unit. It is equipped with three heats. A handsome afternoon tea kettle is of hammered brass, and, in addition to its utility, the appearance is ornamental. Another type of griller or toaster is fitted with an adjustable foot which permits its use as a radiator when necessary.

Electric fans are stocked in various sizes. One type of fan is known as the "Polar Cub," a line of which the firm are sole distributors. Made in two sizes of stamped steel, 6 and 8 in., these are perfectly efficient, and although almost tiny, occupying only a few cubic inches of space, they give a surprising blast of air. The cost is trifling for such an appliance. The "Polar Cub" should be invaluable in a kitchen to clear the air of flies.

The firm are well known suppliers of electric lamps, lighting appliances, and fixtures. Whether for household use or for store display purposes, all classes of globes and fittings are here available. The array of glass is specially complete, including as it does a fine selection of opal and decorated shades in every conceivable design.

A big assortment of electric torches is worthy of mention. These range from the small pocket variety to the largest size, including the 3-cell lantern of exceptional strength.

Fullerton, Gray & Co. Pty. Ltd., of 103 Flinders-lane, Melbourne, are manufacturers of a large range of electrical specialities which, under the brand of "Thermoleo," are now well established on the market. The domestic appliances supplied by the firm include toasters, grillers, plate warmers, portable cookers, urns, milk heaters, sterilisers, and many other lines. Radiators are made in a number of fine designs and sizes, equal in quality to the best obtainable, and finished in a most creditable style. There is also an excellent bath heater, and a series of electric kettles in all sizes.

For industrial purposes the firm have designed and marketed an electrical glue pot, which has found favour in wood working and bookbinding factories and similar trades, and also a soldering iron. The latter is a self-contained unit, and has successfully solved a problem in many plants where the soldering iron is in almost constant use. It obviates the necessity of continually returning the iron to a more or less effective fire or gas flame, and saves much time in the various operations.

The latest production from this factory is the "Thermoleo" kitchenette range. This is strongly constructed and well-finished, and provides a complete cooking appliance at a reasonable cost.

The Lawrence & Hanson Electrical Co. Ltd., of 172-176 William-street, Melbourne, are distributors of the well-known McClary electric ranges. This Canadian company have specialised in cookers, and turn out a pattern for every class of work. A leading feature of the McClary oven is the effective insulation, which enables it to retain the same temperature long after the current is shut off. This makes for ecenomy in use. The finish of these ranges is such that all parts are easily kept clean, and the perfect control of the heat at all times makes easy work for the housewife.

Other domestic utensils stocked are the Australian-made "Hecla" products, which include urns, toasters, grillers, kettles, radiators, water heaters, and a wide range of similar goods.

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This firm are also distributors in Australia and New Zealand of the "Liberty" vacuum cleaner, which is equipped with a general electric type motor. It is built low to operate under low furniture, and has a spiral nozzle brush driven from both front castors. The makers claim that the "Liberty" has many features in design and construction which make it exceptionally compact and efficient. It is light in weight and handy in use.

One of this firm's largest departments is that devoted to lighting. The "Excellite-Hyperion" totally enclosed units are of special glass, ensuring even distribution of light. They are supplied in either plain or etched finishes. A type which is rapidly gaining in favour is the "Argenta" opal glass lamp. The soft effect of the light from this lamp is most noticeable in contrast to the plain variety, and pleasing to the eye. It seems certain that this class will eventually displace the old type.

For show window lighting the popular Sterling silvered glass reflectors are constantly in demand. The Sterling stipple eliminates all shadows, and enables the exact proportion of light for any necessary effect to be perfectly controlled. The suppliers are able to adjust this reflector to the precise needs of the window, and can always advise upon the correct pattern.

The "Benjamin" equipment is intended for industrial lighting, and is designed for schools, machine shops, factories and mills. Correct illumination is now reduced to an exact science, and these commercial reflectors necessarily follow upon these lines. Benjamin "Rodalux" fittings are for wharves, docks and yards, and are made in several patterns to suit individual needs.

The firm also carry all wireless requirements, while Philips' battery chargers, high tension units and similar appliances are always in stock. The "Sterling" loud speaker is now familiar to all wireless users. They are in various sizes, and can be recommended with confidence.

Noyes Bros. (Melb.) Pty. Ltd., of 495-501 Bourke-street, Melbourne, are suppliers of all electrical material, from wiring equipment and accessories to illuminating glassware and domestic appliances.

They are distributors of the well known Philips' lamps, and wireless goods, and of Callender's cables. In household apparatus they offer the G.R.S. electric clothes washer, which is claimed to be exceptionally efficient, capable of washing delicate fabrics with perfect safety, and also handling heavy articles with ease.

The firm have been appointed agents for Archibald Low & Sons, of Glasgow, makers of the "Highlow" electrical cooking appliances. The range of these goods extends from the ordinary toaster or griller to heavy duty baking ranges. These manufacturers specialise in cookers for restaurants and hotels, a department in which they excel.

The vacuum sweeper is now a household necessity, and this firm stock one of the best-known makes, the "Hoover." Two other useful lines carried are the "Creda" iron and electric kettle. The former is now guaranteed for five years. The kettle is of strong copper, heavily nickel-plated, with ebonised wooden handle; the heating element is guaranteed for a year.

Among a number of good table lamps, one of the most striking is the "Adjusto-lite." It is ingeniously designed, and may be attached anywhere, or placed on the table or desk in the usual way. A movement of the hand will adjust the reflector so as to project the light exactly where required. It is reasonable in price and obtainable in either brass, bronze or nickel finish. The "Greist" patterns have also convenient adjustment features. In this style the "Juniorlite" has a wide range of uses. Standing 12 in. high, it may be had in a variety of finishes to harmonise with different colour schemes.

In these days of elaborate window displays, heavy demands are made in the way of indirect and semi-indirect commercial lighting, and the firm are showing a very large selection of glass and equipment for this purpose. Numerous designs and decorations in both shades and metal fittings are to be viewed in the show rooms, giving the buyer a definite idea of the results to be achieved.

Electric fans of many reliable makes are stocked, including the "Dayton." All are available in either D.C. or A.C., and comprise desk and bracket types, as well as fans specially intended for ceilings. The exhaust patterns are usually four bladed, and 10 or 16 in. in size. The firm are also handling the Australian made "Hecla" electrical ware, covering a wide range of fires, grillers and all domestic appliances.

A large and growing department is devoted to wireless equipment and accessories, and consignments of Halliwell violet ray outfits, vibrators and hair dryers are just coming to hand.

Warburton, Franki & Co. (Melb) Ltd., of 380 Bourke-street, Melbourne, are making a special display of "Falco" electric cookers. Several of these lines are most attractive, presenting a thoroughly efficient and compact cooker at a reasonable price. A breakfast cooker, No. 3251, finds a ready sale. Substantially constructed of fine cast iron, with bright top table, this pattern supplies a want for the small family. The drip tin and grid are adjustable, the internal dimensions being 10½ in. wide, 9 in. deep, and 5¾ in. high. The "Falconnette" model No. 3252 is small but complete. It is intended for small flats or apartments. The element in the hob serves the dual purpose of boiling on the top surface and grilling, toasting, or browning in the oven as a top element. The oven has a bottom element only. The oven is 9¾ in. wide, 12 in. deep, and 10 in. high.

A large selection of lighting equipment and shades is carried in stock, suited for domestic or commercial needs. Many attractive table standard lamps are to be seen in the firm's show rooms, the choice of styles and finishes being extensive. In kitchen apparatus and household articles every description of electrical device is constantly kept, new goods coming to hand in every vessel from Great Britain and America. The new "Sweeper-Vac" electric wringer is designed to cut out one of the most tiring jobs in the home. The ordinary hand-wringer has had its day, but at the best it is hard work for the user. This later device is extremely simple. It wrings, reverses and stops electrically. It handles heavy pieces which are almost outside the strength of a woman. Working in any position, it has but few parts, and is equipped with two safety releases to obviate any danger of crushing fingers or catching the clothes. The arrangement is such that it cannot start by mistake, and stops at a touch of the reversing lever. There are two models. The tub model fits standard sized tubs, whilst the other pattern is fitted on a stand to the correct height, and roller castors enable the machine to be moved close up to the job with ease.

The firm are now showing an electric refrigerator, known as the "Frigidare." This freezer needs to be seen to be appreciated. In brief it supplies a complete and compact refrigerator and storage chest, suited either to the household or cafe. Electrically operated, it works automatically, and in addition to keeping food at a temperature which ensures freshness and safety, a continuous supply of ice cubes is provided daily as required.

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HARDWARE AND MACHINERY

With which is incorporated

"THE AUSTRALASIAN IRONMONGER, ENGINEER AND METAL WORKER"

Established 1886.

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Subscription—10/- per annum.

For 30/- per Annum we will supply (in addition to above) The Ironmonger (London), weekly, and a copy of The Ironmonger Diary. All Post Free. Single copies 1/- each. Subscriptions payable in advance.

Advertisers will kindly note that all alterations to Advertisements should reach us by the 25th of the month.

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House to House Selling.

(From "American Exporter.")

The greatest single problem that has faced the merchants of the United States during 1926 has been the increased invasion of their fields by manufacturers selling direct to consumers through house-to-house canvassers. While this development has not yet occurred to any extent in other countries, merchants abroad should be interested in studying the methods of door-to-door salesmen.

Canvassing of this sort requires more real salesmanship, in order to be productive of large results, than selling over the counter. The volume of house-to-house sales, therefore, is governed to a great extent by the available supply of sales help. The pioneers in this method of selling, owing to their comparatively long experience in it, have been able to build up unusually efficient sales forces, and have had little difficulty in holding their staffs together owing to the manufacturers' prestige and to the consumers' acceptance of the products. They have also spent a great deal of money in widespread advertising in order to acquaint the consumers with their goods.

The Young Man's Day?

Harry Gordon Selfridge, jun., the managing director of the new Selfridge Provincial Stores Ltd., which comprises several big businesses outside London, is 26 years of age. His youth and the fact that he is called to the leading position in the management of this £3,000,000 concern are calculated to arouse the envy of thousands of young men engaged in business and commerce, and may at the same time give rise to a lament on the part of some who are older that the news is but another little evidence that this is the young man's day. Young Selfridge, as might be expected by those who know anything at all of the origin and development of the Oxford-street store, has been brought up in what may be called the American School, which teaches the virtue of individual effort and leads eager, ambitious youths to reach out for opportunities long before they leave college. The chance of doing a piece of useful work is seized with avidity. The idea that the power to "get on" is in oneself is inculcated in the student in America and, largely because of that, personal independence is an outstanding characteristic of the American people. Harry Gordon Selfridge began his connection with his father's business while he was still at school, for he spent part of his holidays from Winchester in the store, and later, when at Cambridge, devoted part of his vacation to increasing his knowledge of the ramifications of the fascinating business of retail distribution. Admitting the possession of certain advantages denied to many young men placed differently, there is still something calling for admiration and emulation in the rapid rise of "H. G. S." which deserves to be noted by many juniors in the hardware trade. Moreover, there is no need for those of us who are over 26 to be the least bit disconsolate respecting the progress of youth. We know many bright young men in the hardware trade of fifty years or more who are just as active, just as enthusiastic, just as intensely interested in their work as they were when they first stepped behind the counter. Only the other day a well-known South of England ironmonger told us that he had been more than 40 years in the trade, and had enjoyed every minute of it. To-day he is forging ahead to new conquests and undertaking new responsibilities. Youth, after all, is not to be measured altogether by years.—"The Hardware Trade Journal."

Foreign Exchanges.

Foreign rates of exchange in London for cable transfer on the centres and dates indicated, compare as follows:—

Par.	—	—	Feb. 21	Feb. 24	Feb. 28	Mar. 3
4.886	New York	Dols. to £	4.85 1/32	4.85 1/32	4.85 3/32	4.85 1/32
4.866	Montreal ..	Dols. to £	4.85 1/4	4.85 1/4	4.85 1/4	4.86 1/32
25.225	Paris	Frcs. to £	123.00	123.97	123.95	124.05
35.000	Brussels ..	Bels. to £	34.87	34.88	34.88	34.89
25.225	Rome	Lire to £	109.87	111.30	110.87	100.69
12.107	Amsterdam	Florin to £	12.11 1/8	12.11 1/8	12.11 7/8	12.11 7/8
12.107	Batavia ..	Gul. to £	12.11	12.12	12.12	12.12
18.159	Stockholm	Kron. to £	18.17	18.17	18.16	18.16
18.159	Oslo	Kron. to £	18.86	18.76	18.69	18.70
18.159	Copenhagen	Kron. to £	18.20	18.20	18.20	18.20
20.43	Berlin	Gmks. to £	20.46	20.46	20.46	20.47
24	Calcutta ..	Pen to rup	17 1/16	17 1/16	17 1/16	17 1/16
24.58	Yokohama	Pen. to yen	24 1/4	24 1/4	24 1/4	24 1/4
*	Hongkong	Pen to dol.	24 3/4	24 3/8	25 3/8	24 1/4

* Par depends on rise and fall in price of Silver.

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Editorial

Company Law in Australia

In the matter of company registration the Acts passed at different dates in Australia and New Zealand are modelled on the earlier legislation of the British Parliament. So far as the limited liability principle goes that legislation dates from 1862, until which time the liability of all the members or shareholders in a company was unlimited. In the event of winding up, that is to say, any member could be sued for the full amount of the company's debts, even though he only owned a single share. But under the new legislative principle the liability of shareholders is strictly limited. Each shareholder in a company limited by shares is responsible for no more than the nominal value of the shares which he actually holds. If these shares are fully paid he stands to lose no more, at the very worst, than the money already put into the venture. But if the shares are not fully paid the holder is liable for the difference. If his liability is not more than the nominal value of the shares he holds, neither is it any less.

In this part of the world the British model has been followed rather slavishly, situations being contemplated which so far as appears never present themselves. All the colonial Acts, for example, provide for the registration of unlimited as well as of limited companies, and all make it optional for "the directors or managers or managing directors" of limited companies to assume unlimited liability. It is questionable if a single instance of either of these things can be found on any Australasian register. Banking and other corporations there are not using the word "limited" as part of their title, but these have been incorporated under special Acts of Parliament or by Royal Charter, and are in effect limited liability companies. The various Acts also make provision for companies limited by guarantee. This refers to associations of one kind or another not formed for purposes of gain, but for advantages in some other direction. The members do not put, and do not need to put, any capital into the "company" when registered, but each of them guarantees to find a fixed amount in the event of it being needed. Companies limited by guarantee are not unknown in Australasia, but they are extremely rare. Several other kinds of companies, including no-liability (mining) companies, are provided for in the large body of legislation on this subject passed in Australasia.

New Zealand makes special provision for the registration of "private companies." Like public companies these add the word "limited" to their names or titles, but are exempt from several of the requirements imposed on those concerns whose shares are on the open market. In each case, however, the memorandum must contain a declaration that it is a private company and the certificate of incorporation expressly indicates its private character. Victoria, followed by Tasmania, meets this need in another way. Both permit the registration of "proprietary companies," which must declare their real character or constitution to the world by adding the word "proprietary" to their titles. From year to year these companies have to lodge with the Registrar-General a "list and summary" of capital and shares and to acquaint that officer when it occurs with any change in membership or directorate, as well as of location or address. But they are not required to file a "balance-sheet" at any time and no independent accountant need be called in to audit the accounts. Their membership, moreover, is not open to outsiders, the directors controlling fully and absolutely the issue and disposition of all shares. This consideration more than any other accounts, we believe, for the popularity of these "proprietary" provisions as shown by the number of such companies that find their way on to the register.

But from his seat on the bench an experienced Victorian judge has shown that the law on this subject is open to abuse, and it would seem that in a comparatively recent consolidation of the Company Acts certain restrictions upon the formation of such companies have been dropped. This has raised the whole question of company law and the desire for uniformity throughout Australia is again finding expression. A great gain, undoubtedly, but how is it to be secured? On more than one occasion the electors have refused to grant the Commonwealth Parliament such enlarged powers as would enable them among other things to take company legislation out of State hands. By mutual agreement the different States might adopt a model measure and pass it into law simultaneously, but as things are there seems little hope of this. Victoria, we take it, will have to handle her own company affairs and while blocking up any holes through which unscrupulous persons find entrance we hope she will not pull down the "proprietary" structure altogether. The legislation has proved a great benefit to the business community and in principle ought to be retained.

A Momentous Decision

By a majority judgment the Commonwealth Arbitration Court has granted an application by the Amalgamated Engineering Union for a variation of its award from a working week of 48 to 44

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hours. The importance of the judgment lies partly in the fact that it will determine very largely the number of hours to be worked in all normal industries throughout Australia. Having made a reduction for one set of workers it is difficult to see how the court can refuse it to other sets where the conditions are at all similar, but these others will have to prosecute their several cases and obtain separate judgments before they can enjoy the shorter hours. Which means, we take it, that neither for the Court nor for Australian industry will there be any peace in the immediate future.

Judgment was given after a long hearing, with many witnesses, and every aspect of the question debated by learned counsel pro and con. On the evidence Chief Judge Dethridge decided—with some misgiving as it would seem—that for the engineering industries of the Commonwealth the standard week of work should be 44 hours, thus bringing all the States into line with those which had already adopted the shorter term. The chief was followed more boldly by Judge Beeby, who confessed to an ethical leaning towards a shorter week, a fact not to be wondered at when it is remembered that in days gone by he was a Minister of the Crown in a Labour Government. Judge Lukin, on the other hand, took quite another view. He dissented from his colleagues in an outspoken judgment which, disregarding no relevant fact or factor in the case, yet came to quite another conclusion. For this particular industry as things were, he maintained, shorter hours had no justification and should not be granted. Their concession might not mean "industrial paralysis" or "economic disaster," as had been suggested in other quarters, but it would mean, in his opinion, further restriction of output at a time when increased output was highly desirable. It spelt retrogression or, at best, stagnation rather than advance.

While the case was being heard Judge Dethridge expressed grave doubts of any part of the output lost by reduction of hours being recovered by quickening of pace. But in his judgment and more definitely in subsequent utterances, he has said that such recovery is essential, that unless in some way production is stimulated during the shorter week, the concession will fail to justify itself. He expects employers to adjust themselves to the new order, and urges employees to accept wherever possible the piece-work basis of remuneration. Yet he must know as well as another that "payment by result" is anathema to Labour leaders in Australia. They have always opposed such a system, and with the judge's words in their ears show no signs of repentance. What they expect and will insist upon, according to the words of some of them, is forty-eight hours' pay for forty-four hours' work.

That manufacturers should take Judge Lukin's view of the case is not surprising. They regard it as a mistake if not a crime against Australian industry. With many of them costs of production are already too high in the face of competition from overseas, and that notwithstanding a lofty protective wall. This decision is going to accentuate the disparity, they feel, and make it harder for them to keep going. A certain newspaper says that neither the joy of the Trades Hall nor the apprehension of the Chamber of Manufactures need weigh overmuch with people. Beyond the clashing views of masters and men we should look to the good of the country as a whole. Exactly. And we believe that speaking generally manufacturers are large-minded enough to do that. When they express grave doubts about the wisdom of this judicial interference with the industrial machine they are thinking of more than themselves. If, as they fear will be the case, the shorter week is going to make their lot harder, it is also going to restrict employment and increase the cost of living. These surely are "popular" considerations in the true sense of the word. They affect the whole body of the people. It will be a doubtful blessing for Australian artisans if with the shorter working week, and as a result of it, they find it harder to secure employment and have to pay more for manufactured goods. The reactions upon primary industry also have to be considered, and while we hope the worst fears of the dissenting judge will not be realised, we are free to confess that we share his apprehensions.

Consolidation of Banking Interests

One after another the smaller and especially the one-State banks are being merged in larger institutions with more of the federal character and connection. This distribution of risks over the whole of Australia makes for stability and progress for in any particular year one of the States may suffer seriously from drought or depression of business.

Already seven different banks have disappeared by amalgamation, and the absorption of three others is only a matter of time. The negotiations are in progress, with every chance of success. With these also merged, banking business throughout the Commonwealth will be handled by eight large joint stock institutions, having an aggregate actual capital of £55,360,000, with six smaller banks, local or foreign, and a larger number of savings and agricultural banks, often run or guaranteed by the respective States. Of the six smaller banks aforementioned, the two of most importance are the Bank of Adelaide and the Queensland National Bank, the former having paid up capital and reserves totalling £1,655,000, and the latter similar funds to the extent of £2,160,000. Within recent years ten private banks have ceased or will soon cease to operate in their own names, and by way of set-off the only additions in these years are the Commonwealth Bank of Australia, a federal institution now doing a huge business, both savings and general, and the Primary Producers' Bank of Australia, whose field of operations is sufficiently indicated by its title.

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Inquiry Column

TRADE INQUIRIES

During the month we have supplied answers to the inquiries indicated below. Firms with whom we have not already communicated who hold any agency connection with the firms, or handle any of the lines mentioned in this section, are invited to furnish us with particulars so that our lists may be complete.

Information Supplied.

Stuarts' Cut Glass.—Name and address of agent supplied.

"Imperial" Benzine Iron.—Name and address of agent supplied.

Gages' Wooden Taps.—Names and address of manufacturer supplied.

"Patria" Cooking Stove.—Name and address of manufacturers supplied.

"Lux" Cooking Stove.—Name and address of manufacturers supplied.

Wade & Butcher, Sheffield (cutlery).—Name and address of agent supplied.

Tin Bottoms for round milk strainers.—Name and address of makers supplied.

Planet Junior Implements.—Name and address of agents in Sydney supplied.

Iron Verandah Posts.—Name and address of makers in Melbourne supplied.

Steel Wheel-barrows.—Name and address of makers in Melbourne supplied.

Metters Ltd., Sydney.—Name and address of Melbourne representatives supplied.

Sessions Clock Co., Forestville, Conn., U.S.A.—Name and address of agents supplied.

Steel Skull Caps used by motor-cyclists.—Names and addresses of manufacturers supplied.

Power Feed Sanding Machine branded "Sparrow."—Name and address of manufacturers' supplied.

Oliver Chilled Plow Works, South Bend, Ind. U.S.A.—Name and address of agents in Victoria supplied.

The Stanley Works, New Britain, Conn., and New York City, U.S.A.—Name and address of agents supplied.

Kerb Petrol Pumps (known to many as "Bowsers").—Names and addresses of manufacturers and agents supplied.

An Ambiguous Order.

A Tasmanian correspondent (1/202) had difficulty in interpreting a recent order, and would like to know how others would approach the problem. The order was received by telephone and as sent down to the department concerned read as follows:

1 Doz. Fowler's Spring Clips No. 27.
6 —— Bottles No. 27.

What was really ordered?

A. What the customer ordered it is impossible to say on the evidence. What the telephone clerk ordered was one dozen of Fowler's spring clips No. 27 and six dozen unnamed bottles of the same number. Reading between the lines, it is likely that six of Fowler's bottles No. 27 and twelve spring clips for such bottles were required. But the order before us does not say so. It says something else.

This is our own view, but we have to confess that while some men in the trade agree with us others do not. In their particular usage they say the dash rather, extended as it is, would not indicate a ditto but a negative. The dash, that is to say, scores out dozen and asks for six only. We shall be glad to hear how others would interpret such an order. But we would not recommend others to adopt the practice. It should be avoided because it leaves most people guessing.

Information Wanted.

Tarr & Wonson.—Name and address of agent wanted.

Noxon Mowers.—Name and address of agents wanted.

Bettmann & Kupfer, London.—Name and address of agent wanted.

Salisbury Chinaware.—Name and address of supplier in Sydney wanted.

The Union Hardware Co., U.S.A.—Name and address of agent wanted.

"Allegro" Razor Blade Sharpener.—Name and address of agent wanted.

Meyer, Birmingham (rubber novelties).—Name and address of agent wanted.

"Ayres James" Aluminiumware (American).—Name and address of agent wanted.

Heath Spring & Notion Co. Ltd., Redditch.—Name and address of agent wanted.

Steel Skull Caps used by jockeys.—Names and addresses of makers and sellers wanted.

George Bender Co-operative Co. (Gold Bronze Powder).—Name and address of agent wanted.

LEGAL INQUIRIES

Both in Melbourne and Sydney we have made arrangements with lawyers of good standing in their profession to answer through this journal any legal queries addressed to us. Readers who meet with difficulties are requested to state these as clearl as possible.

Preferential or Ordinary?

Subscribers in Brisbane (70/143) inadvertently paid an account twice, and before they could stop or recover the second cheque the client had assigned his estate. How do they rank?

A. They are only ordinary creditors, and must prove their claim against the insolvent.

Landlord and Tenant.

I am a monthly tenant for many years, both business and private dwelling, having no lease, but paying monthly fixed date. Can I give notice at any date during the month, or is it necessary to give notice from date of usual payment?

A. As the tenancy is from month to month, the landlord is entitled to and can require a full month's notice, given on or before a date when payment is due, and taking effect one month from such date.

Registration of Firms.

John Brown and Harry Robinson contemplate opening business in partnership. The Registration of Firms Act prevents them doing so under the name "Brown & Co." without being registered. If they assume the name "Brown & Robinson," the real surnames of both partners, would they have to register?

A.—Yes. A firm must be registered unless the firm-name consists of the full names of the partners, e.g., "John Brown & Harry Robinson."

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Sundry Credits

By J. Knibb.

Not Rabbits But—

No, my dear young ironmonger, it isn't a rabbit-plane but a rabbet-plane. In joinery a rabbet is a rectangular groove cut in the edge of a board to receive the edge of another board. Take the case of swinging doors. If instead of swinging clear, as some do, such doors are to close on each other when they come together and so make a tight or tighter joint, the edge of each must be partially cut away up and down on opposite sides. That is a rabbet or rabbet-joint, and the plane that ploughs out the strip of timber is a rabbet-plane, and the lock that fits the grooved or rabbeted edges is a rabbet-lock. Anything else you would like to know?

* * * *

Like and Unlike

I frankly admit that in manufacturers' lists you will sometimes find the word spelt "rabbit." But I have the support of the dictionaries for my view as set out above, and even were it otherwise I would still maintain that position against all comers. In words pronounced alike, but meaning quite different things, I think a distinction in spelling should be maintained as far as possible. On that principle I speak in print of a rubber tyre not a rubber tire, of a tennis racquet not a tennis racket, and of a tradesman's vyce not a tradesman's vice. The vice of tradesmen is another thing altogether. Do I call a certain rough-tongued instrument a fyle? Don't ask foul or foolish questions. I said as far as possible.

* * * *

Midnight Sun —

Lappland, the most northerly province of Sweden, is a land of much interest with its midnight sun and scenic grandeur, its mountain lakes and mighty glaciers and hurrying rivers and roaring waterfalls. Its nomadic people, the Lapplanders proper, with their huge herds of reindeer, are as attractive in their way as the natural scenery. With their Mongolian cast of features, their peculiar language, their rolling walk, their quaint dress, and their tent-like dwellings, the little Lapps are a joy to the visitor. Uncommunicative and rather suspicious of outsiders the traveller who visits them in the mountains will find them hospitable enough unless he is discourteous or intrusive. These Finno-Mongol nomads, it should be stated, only constitute about one-tenth of the population of Lappland.

* * * *

— and Mineral Deposits.

It is also a land of known mineral possibilities as the following quotation will show:—"One of the richest iron-mining districts in the world is situated in Lappland. Immense quantities of ore lie these in the bosom of the earth, and at Kiruna and Gällivare one can see whole mountains of it. Mount Kirunavaara alone is calculated to have 240 million tons of this ore within a depth of 300 yards, and 1370 million tons within 1500 yards. Some of this ore contains as much as 79 per cent. of iron. At Porjus the Government (of Sweden) has constructed a large waterpower station, at present producing 80,000 turbine horse-power for the mines, the electric railway, etc., and extensions to twice that capacity are in course of construction."

* * * *

The Ancient Grudge —

When I was younger than I am to-day alas! I took part in a debate, "Monarchy v. Republicanism." To my team—for I was the leader —fell the maintenance of monarchy as an institution, and we did it with complete success largely because our friendly oponents dealt not with constitutional monarchy, but with the absolute kingship of a day gone by so far as the British peoples are concerned. Our opener disclaimed any intention of defending the "divine right of kings to govern wrong," but in spite of such disclaimer our opponents, who taken as a whole were readier speakers than we, went for the kind of thing that brought the first Charles to the block, and obtained even then in Russia, for this was before the Great War. The judge, a distinguished member of Parliament, discounted, and rightly so, much of the republican argument. It was out of date or off the mark.

* * * *

— In Modern Propaganda.

Certain politicians, I have long noticed, pursue a similar course. They trot out the evils of the past and proceed to trounce them as if they still obtained. There are suggtions of this in a newspaper article from which I quote the following paragraph: "One fact, however, stands out pre-eminently. If the world's undertakings in industry are to be carried out uninterruptedly, the social and economic system which condemns the working masses to a lifelong struggle for material existence must be surveyed, all social wastage eliminated, and the fear of unemployment and starvation removed. We must strive to build healthy minds in healthy bodies, together with their combined latent potentialities. In the name of humanity a halt should be called to the demoralising race for profits, in which all the finest human instincts are thrust aside, and which, in my opinion, can be justly held responsible for many of the causes underlying industrial disturbances." So!

* * * *

Does it Matter?

We hear much in these days of business as service. In certain quarters "production for profit" is denounced as a thing unworthy if not immoral. Service of self is said to be inconsistent with the service of others. But is it really so? Take the life of art. Is the painter to be reprehended because he sells his pictures, and sells them to the highest bidder? Or professional life. Ought doctors and lawyers to be suspect because they charge for their work? As a fact, it is not so. The artist who commands the biggest prices and the professional man who demands the fattest fees are not held in less honour among us but in more. In business, however, a different standard is applied by some people. The genius or skill of the manufacturer or merchant is not to be rewarded like these others. Why not? Does the motive or incentive really matter? Sir Ernest Benn says it does not, and from the economic standpoint he can put up a good case.

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Novelties and New Samples

Monel Metal.

Ferrier & Dickinson Ltd., of Royal Exchange Buildings, Bridge-street, Sydney, are in receipt of samples of monel metal, a technically controlled nickel-copper alloy of high nickel content, constructed purposely to resist super-heated steam, high temperatures, alkaline conditions, acids and corrosive agents generally. This material is a product of the Mines of Ontario, Canada, where it is smelted, refined and rolled. A feature is that, besides being widely used in engineering industries, it can be utilised in the construction of ornamental and culinary articles. It responds to cleansing processes readily. The name "Monel Metal" is a registered trade mark.

Patent Reinforced Shovel.

Tullochs Phoenix Iron Works Ltd., Rhodes, Sydney, makers of different styles of shovels, are placing on the market a pattern known as the "Griffin" patent reinforced, which they are now specialising, while continuing the production of other models. The "Griffin" has a corrugated back, which the makers claim to be a necessary adjunct to eliminate spring and vibration in the centre of the blade, at the same time appreciably lessening the possibility of breakage across the weakest part of the shovel, namely, the back portion. These shovels are made from superior steel, and particular attention is given to the balance. Every shovel carries the maker's guarantee.

Gibbons Rotary Sharpeners.

Gibbons Bros. "Rotary" Co. Ltd., of Birmingham, advise an important improvement in their sharpeners for knives and scissors. All the metal parts are now manufactured from a special rustless metal, which is not liable to corrosion like ordinary steel. Although this costs them more the firm have not increased their list prices, but are looking for increased sales by way of compensation. Various models of the knife sharpener are available, and in addition to the individual sharpeners the manufacturers offer a combination or "two-in-one" little machine on which both knives and scissors may be sharpened. On all their scissors sharpeners a guide automatically sets the blade to the correct angle.

British Ball Bearing Lawn Mower.

Following the visit to Australia of Mr. Jobson, a director of the Derwent Foundry Co. Ltd., of Derby, England, the company are now making a "Qualcast" ball-bearing lawn mower. These manufacturers have been most successful in marketing British-made mowers, and Mr. Jobson's tour of the trade here convinced him that there was a demand in many States for the ball-bearing type.

The new mower is supplied in 12 in., 14 in , and 16 in. sizes, and is of the five blade, 9 in. wheel pattern. Samples are now to be seen at the rooms of the Australian agents, Gibbs Bros., 30 Flinders-lane, Melbourne, and 209 Castlereagh-street, Sydney, and of their sub-agents, Cohen & Long, 804 Hay-street, Perth, W.A.

"Signet" Blind Rollers.

J. Chaleyer & Co. Pty. Ltd., of 510 Collins-street, Melbourne, are sole agents throughout Australia and New Zealand for Haglund & Soners, manufacturers of "Eclipse" and "Mercur" shade rollers. It is now notified that they are marketing a new spring roller, known as the "Signet." Although the price of this is somewhat lower than the other brands, the makers undertake that quality has not been sacrificed in the least.

The spring is on the scientific principle adopted by all leading makers, and every roller is warranted as efficient and reliable for shades of ordinary size. "Signet" rollers are of one piece of timber, and are not dowelled. The wood is of good quality, giving a rigidity which permits smooth and quiet operation.

"Cyclops" Files.

Cammell, Laird & Co. Ltd., of Sheffield, whose announcement appears in our advertising columns, are well-known manufacturers of special steels, corrugated furnaces and railway couplings. To the Australian and New Zealand hardware trade they are better known, perhaps, as makers of "Cyclops" files, a brand which has been very popular in this part of the world. During war-time, however, the firm, like many others throughout Great Britain, were obliged to devote a great part of their plant to the production of military and naval supplies. Among notable achievements in this direction, they built the cruisers "Sydney" and "Melbourne," and the battleship "New Zealand."

During the years following the armistice the firm have gradually resumed the manufacture of the old lines. Their output of "Cyclops" files and rasps is again very large. The steel of which these tools is made is rolled into bars in the firm's own mills, and great attention is paid to the careful hardening of the files to ensure long life. After hardening they are scoured with wet sand, immersed in lime water and dried, a final covering of oil being then brushed into the teeth to prevent oxidation. Every file is carefully inspected by trained men, the least defect being sufficient to cause its rejection. All patterns of rasps and files are produced in the "Cyclops" brand.

The agents for New South Wales, Victoria and Tasmania are Kendall, Knight & Co., of 114 King-street, Melbourne, from whom catalogues may be obtained on application.

The Big Men.

(By Walt Mason.)

The big men dare, and the big men do; they dream great dreams, which they make come true. They bridge the rivers and link the plains, and gird the land with their railway trains; they make the desert break forth in bloom, they send the cataract through a flume to turn the wheels of a thousand mills, and bring the coin to a nation's tills; the big men work, and the big men plan, and helping themselves, help their fellow-man. And the cheap men yelp at their carriage wheels, as the small dogs bark at the big dog's heels. The big men sow while the cheap men sleep, and when they go to their fields to reap the cheap men cry, "We must have a share of all the grain that they harvest there! These men are pirates, who sow and reap and plan and build while we are asleep; we'll pass new laws that will strip them bare! We'll tax them right and we'll tax them left, till of their plunder they are bereft; we'll show these men that we all despise their skill, their courage and enterprise!" So the small men yap at the big men's heels; and fake reformers with uplift spiels; the bat-eyed dreamers with theories fine, which bring them maybe three cents of brine, and tinhorn grafters who always yearn to collar coin that they do not earn. And the big men sigh as they go their way—we fear they'll baulk at the thing some day.

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Personal and Social

Change of City.

Mr. R. E. Fiddy, who has had charge of the tool department for McPherson's Pty. Ltd., Sydney, has been transferred to headquarters in Melbourne in the same capacity.

An Extended Business Trip.

Mr. A. Stewart Hunt, formerly connected with the Australian branch in Sydney of Henry Disston & Sons Inc., recently returned to the head office at Philadelphia, U.S.A., after spending eighteen months on a business trip, which took him to London, South Africa, North and South Rhodesia, Portuguese East Africa, Kenya Colony, Zanzibar, Tanganyika, Uganda, India, Strait Settlements, Phillipine Islands, China, Japan and the Hawaiian Islands.

Appointed President.

At the annual meeting of the Brisbane Merchants' Association, Mr. J. D. Bell (director of James Campbell & Sons, Ltd.), was elected president for the current year. It is interesting to note that Mr. Bell was also president of the association in 1915 and 1916. The new president is also the president of the Federated Hardware Merchants' Association of Australia, with which body the Brisbane Hardware Association, a section of the Brisbane Merchants' Association, is affiliated.

H.M. Trade Commissioner Service.

The headquarters of H.M. Trade Commissioner service in Australia was recently transferred from Melbourne to Sydney, Mr. R. W. Dalton being in charge. This has necessitated a rearrangement of areas of Trade Commissioners in the Commonwealth. Mr. H. L. Setchell, who took up his duties as Trade Commissioner in Australia in February, will have his headquarters in Henty House, Melbourne, and deal with the affairs of Victoria and South Australia.



Mr. H. L. Setchell

Photo. Sarony

The new commissioner, whose portrait is here given, has had banking and commercial experience in London, Vienna and Geneva. Enlisting upon the outbreak of war, he was severely wounded at the Somme in July, 1916. His wounds eventually necessitated his retirement, with the rank of lieutenant. Entering the Department of Overseas Trade, he took charge of the Capital Issue section. Early in 1919 Mr. Setchell was appointed by his department as its representative at Cologne, and also acted as liaison officer with the Military Governor at that city. He was actively employed at this time in assisting British firms in reorganising their former export trade to Germany, as well as arranging visits of British manufacturers to the German occupied territory.

Mr. Setchell returned to London at the commencement of 1920, and for the past five years has been in charge of the German, Czechoslovak, Austrian and Hungarian section of the Department of Overseas Trade.

Wedding Presents.

Recently the warehouse employees in Brisbane of the Vacuum Oil Co. Pty. Ltd. assembled to offer their wishes of prosperity to Mr. James W. Rice. On behalf of the staff, Mr. R. J. Crawford (warehouse superintendent) presented Mr. Rice with a case of stainless cutlery and a cut glass vase, and wished him the best of good luck, both for himself and his future wife. Mr. Rice suitably responded.

Staff Picnic.

On the last Saturday in January, the staff of Messrs. E. W. Mills & Co. Ltd., Wellington, New Zealand, held their annual picnic, the third of the series. Favoured with delightful weather, the party, to the number of over 150, enjoyed a pleasant outing at Pahautanui, where they were taken by char-a-banc. A lengthy sports programme was put through by a competent committee, and Mrs. J. H. Wagg distributed the prizes.

Steel Works Picnic.

On February 15 the employees and their families, totalling about 2,500, of the Lithgow Iron Works, N.S.W., were conveyed by two special trains to the showground at Bathurst. The outing took the form of a general picnic in connection with which was a fine programme of sports, and the official banquet was attended by upwards of a hundred responsible officers and employees. Present as guests were Mr. Sidney Hoskins, Mr. H. Mackay (manager of Hoskins Iron & Steel Co. Ltd.), Mr. Dooley, M.L.A., and Mr. G. A. Kelly, M.L.A.

Complimentary Send-offs.

Mr. D. J. Malone, managing director of the Purcell Engineering Co. Ltd., Auburn, N.S.W., was tendered a complimentary send-off by the employees of the company before leaving by the R.M.S. "Makura" on February 25, on a business trip to America.

Mr. A. L. Finn, managing director of the Engineer & Sawmill Supply Co. Ltd., Sydney, tendered a farewell luncheon at the Hotel Australia on February 21 to his co-directors, Mr. Bartholomew Bannon and Mr. D. J. Malone, who leave on February 25 by the R.M.S. "Makura" on a business trip to U.S.A. and Europe. Among the guests present were Mr. F. Waddington, Mr. J. Sonnerdale, Mr. J. R. Falconer, Mr. C. E. Lewis, Mr. A. D. Finn, Mr. Ward, and Mr. R. Waddington.

Mr. Cecil E. Mayo, Bathurst House, 209a Castlereagh-street, Sydney, has been appointed representative in New South Wales and Queensland for C.A.V. Small Tools Ltd., Portslade, Brighton, England, manufacturers of "Wade" lathes and small tools. For Victoria, South Australia and Western Australia, the representation is held by Mr. C. J. Thomas, Stock Exchange Buildings, 422 Little Collins-street, Melbourne. Samples and catalogues are available at the showrooms of both agents.

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News from Abroad

Canadian Board of Trade.

The Canadian Board of Trade, representing some ninety affiliated Boards of Trade scattered throughout the Dominion, recently completed its organisation under the presidency of Mr. S. B. Gundy, ex-president of the Toronto Board of Trade. The new organisation is the outgrowth of the Canadian Economic Conference held at Winnipeg in 1926, and is designed to secure the general co-operation of all the local boards in matters affecting the economic welfare of the Dominion.

Defective Imports in South Africa.

Dated from Capetown on February 28, the following cablegram appeared in the Australian press:

"Serious defects in the new American locomotives imported by the Government have been the subject of Parliamentary questions. The Government has admitted that eighteen had to go to the workshops for repairs, but the full extent of the defects is not known.

"The 'Cape Times' states that £200,000 of steel rails purchased from Continental firms have been condemned by South African experts as useless."

Steel Industry in South Africa.

From Capetown under date February 22, the Australian press published the following cablegram:

"In introducing the Iron and Steel Industry Bill in the House of Assembly to-day, the Minister of Labour (Mr. Boydell) said that German experts had reported favourably on the prospects of the industry in South Africa. Under the bill the Government proposed to acquire the Pretoria Company, and authorise a share capital of about £4,000,000, to which the Government would subscribe £500,000 and guarantee 5½ per cent., or £1,500,000. The next £1,000,000 would be raised by the issue of 7 per cent. preference shares. The Government was to have a majority on the board of directors. He denied that this was a bolshevistic scheme—the sole intention was to develop the resources of the country for the benefit of the people."

Manufacturer and Retailer.

In March, 1926, Henry Disston & Sons Inc., of Philadelphia, Pa., U.S.A., organised the Disston Twenty-five Year Club, membership being open to all those retail dealers who for at least twenty-five years have regularly sold the Disston products. Every member who applies for membership and satisfies the company that he is entitled to it, is duly enrolled as a member and receives a framed certificate of membership to hang in his shop. No fee is payable or charge made of any kind.

The scheme "caught on," and by October the club had attained a membership of 641, a full 400 of the applications having come in by post from all over the United States. As they distribute their manufactures through the "jobbers," or wholesale merchants, the company have found it difficult to maintain any personal contact with their many friends in the retail trade. The Twenty-five Year Club is, therefore, the beginning of an effort on the part of the company to bridge the gap—to make those who have sold their products for many years consider themselves a part of the Disston organisation, to profit by their practical knowledge of hardware distribution, and in return give them all the co-operation possible.

London's Scrap Metal Trade.

In its December issue "The Port of London Authority Monthly" had an article on the extensive business interests there of marine store dealers. The leading firms have their depots close to the River Thames chiefly because the cost of carriage by water is less than by road or rail. In these yards the extent and variety of the goods piled up is truly amazing. Flat irons and frying pans keep company with huge retired boilers and chunks of armour plate, 12in. thick. Not mixed indiscriminately, however, for experienced collectors group together those articles of kindred character, whatever the appearance may be, so that any and every group may go to the furnaces or foundries requiring that particular kind of metal.

Special mention is made of George Cohen, Sons & Co. Ltd., a firm which started in 1834, is still in the hands of the original family. At their Limehouse Wharf the writer says there were some 10,000 tons of scrap in sight, while at their River Lea Wharf, where the larger stuff is dealt with, he was shown great quantities of rails and girders and boilers. "A notable work performed by this firm was the dismantling, after the Armistice, of all the obsolete loaded shells in this country. Some idea of the magnitude of the task may be gained when it is stated that it occupied an extra 3,000 to 4,500 men for two years. A considerable proportion of the scrap accumulating in London finds its way to George Cohen's depots, and cargoes leave the Thames in normal times not only for South Wales, Scotland and the North of England, but also for India, Australia, China, Morocco and elsewhere."

Problem of Tin Supplies.

Heavy consumption which outruns production has placed tin in a stronger position than at any time in the post-war period, states the "Commerce Monthly," the journal of the National Bank of Commerce, New York. Output in 1926 will apparently be slightly lower than in 1925. Consumption, on the other hand, has been stimulated by the high rate of industrial activity in the United States.

Annual world requirements of tin have been regularly exceeding the yearly output for several years past. This situation has been obscured by the liquidation of tin accumulated in the Malay States and elsewhere during the price debacle of 1921-22. The last of the Malay stocks was absorbed by the end of 1924. Since then visible supplies have been cut down by a third. Progressively increased consumption has been accompanied by higher prices, which in a limited way have stimulated production, but not in proportion to the expanding requirements.

With world requirements annually exceeding output prices have advanced greatly. The average price of Straits tin in New York in 1921 was 30 cents per pound, and the average price for 1926 will be slightly over 65 cents.

High prices have had their effect in maintaining the volume of the world's tin production. The results of added capital, widespread adoption of mechanical methods that facilitate the recovery of tin from low-grade ores, and expansion of tin mining in the chief producing areas are reflected by increased production. The record output of 1925 was accomplished in the face of limited tin-yielding areas and declining tin content of the ore.

Of the world's production of 143,157 gross tons of tin in 1925 the Malay States (federated and unfederated) were responsible for 48,057 tons, Bolivia for 32,083 tons, Banka and Billiton (islands in the Dutch East Indies) for 30,587 tons, and so down to Australia with 2,708 tons. In 1913 the Australian production was 7,780 tons.

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Electrical Notes from New Zealand

Specially Contributed.

The following loans have been authorised for electrical purposes: Otago Power Board, for the completion of certain electric works, £13,400. Dunedin City Council, for hydro-electric works, £200,000.

Waitemata Power Board has been supplying power continuously since the commencement of supply in December last, with the exception of two days' interruption at New Year, when the 6,600 volt transformers at New Lynn, through which the temporary supply from the Auckland Power Board was received, were replaced by 11,000 volt transformers. The number of consumers is now 3,440. There are 103 electric ranges in service, 143 water heaters, 10 milking motors, and 412 street lamps, exclusive of Devonport.

Since the Otago Power Board started construction work early in 1925, rapid progress has been made, and electric supply is now available to the residents of Balclutha, Stirling, and the Inchclutha district, to all the townships from Waitati to Palmerston, and also to Kaka Point, Purakonui, Warrington, and Karitane. For some months past the supply to the Milton and Kaitangata boroughs has also been taken over by the board. The work of wiring the premises in the various districts named has been completed almost entirely by contractors employed by the board.

Power is obtained for the board's southern area from Waipori generating station, and is transmitted to Milton and Stirling at 33,000 volts, two main substations at these places reducing the voltage to 6,000 for distribution. At this voltage power is transmitted to Balclutha, Kaka Point, etc., and there transformed down to 400 and 230 volts for consumers' use.

In the northern area a 33,000 volt supply is obtained from the Dunedin City Corporation's mains at Port Chalmers, and transmitted at this voltage to Waitati, and thence to Palmerston at 11,000 volts. Main sub-stations at Waitati, Seacliff, Waikonaiti, and Palmerston transform the power down to the distributing voltage of 6,000.

By the end of March the board expect to have every consumer within the inner area connected up, and, in addition, preparations are now being made to extend supply to Waitahuna, Lawrence, Beaumont, and eventually Owaha. Inquiries have been received for electric supply from Clinton, Middlemarch, Ranfurly and Naseby, and although the board will adhere to its policy of completing the inner area before making extensions, it is confidently expected that electric supply will be available in these districts in the near future.

The total number of consumers now supplied by the board is 1724, as follows: Balclutha, 709; Milton borough, 40; Milton area exclusive of borough, 214; Seacliff-Waitati district, 261; Palmerston-Waikonaiti district, 500. More than 130 new connections were made during January.

The annual conference of secretaries and executive officers of power boards opened on February 3, Mr. Charles Campbell, of Invercargill, presiding. Mr. J. A. Nash, M.P., president of the Power Boards' Association, said that two subjects of special interest were advertising and insurance. In his opinion they must carry on an extensive advertising campaign, and he hoped a special committee would be set up to have a scheme ready at an early date.

The president, in his report, summed up the position by saying that their common interest was to discover, first, means for greater efficiency; second, means for securing more business; third, systems under which economies might be effected; and, fourth, generally to promote the development and progress of the functions which the power boards were constituted to perform.

Mr. Campbell, in the course of his presidential address, said: "I am convinced that people outside of our own land have no idea that cheap electricity is made available in New Zealand to such a widespread extent, and I think we should urge the Government Publicity Department to take steps to specially prepare and distribute suitable literature in order to let the world know our abundance of electricity, and generally to state what the Government and power boards have done in the matter of electrical development.

"It is very important for us to keep abreast of the efficient methods being formulated by the very experienced electric lighting asscciations of America and Canada in their commercial, accounting and management departments. . . .

"Up to 31st March last, no less than £8,745,755 had been raised for the construction of power board schemes. The annual interest bill amounts to £503,999, and the annual sinking fund to £116,843."

Mr. F. T. M. Kissel, Chief Electrical Engineer of the Public Works Department, said that the Government was always prepared to receive suggestions from the power boards, and to act on them if thought desirable. The Department was perfectly willing to join with the power supply authorities in the stimulation of the electrical industry, and was willing to assist in the publicity campaign suggested by the boards. To give cheaper rates for electricity, it was necessary to know exactly what the demand would be, so that it was up to the boards to supply all the necessary information.

Addresses were also given by Mr. Waters, Chief Engineer of the Manawatu-Oroua Power Board, on the proposed scheme of advertising, and by Mr. Malcolm Fraser, Government Statistician, on the value of statistical information.

Sales Tables for Show Cases.

From an article contributed by Roy F. Soule (editor of the "Hardware Dealers' Magazine") to the "American Exporter" of January, we take the following paragraph:—

"One very marked change in the equipment of retail hardware stores is under way. In the past glass show cases have been very common equipment. During 1926 a very large number of hardware stores have done away with most of their show cases and have substituted sales tables. The most popular of these are surrounded on the outer edge with low walls of plate glass. These are about four inches in height, can be seen through and make necessary the lifting of any merchandise removed. This apparently slight protection against shoplifting has been an insurance of marked and favourable effect. It is very probable that this change from show case to sales table will continue. The fact that it has materially increased sales in stores so equipped is a guarantee of its power to sell hardware."

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Interstate General News

New Sports Department.

Briscoe & Co. Ltd., of 385-85 Kent-street, Sydney, have opened a sports department, where a full range of sporting material and goods for all games will be stocked.

Cement Works Extended.

The Sulphide Corporation Ltd., Boolaroo, near Newcastle, N.S.W., have recently completed a second unit to their cement works at Cockle Creek which, with the existing plant, will represent a total output of 75,000 tons per annum. The cement produced exceeds in tensile and compressive strengths the standard official requirements, and the Roads Board of N.S.W. are now using large quantities in the making of concrete roads.

New Wallpaper Department.

To meet the demand for wallpapers, whose vogue is increasing as effective backgrounds for artistic furnishings which plain walls do not provide, John Danks & Son Pty. Ltd., of 324-30 Pitt-street, Sydney, have opened a wallpaper department.

Effectively panelled and papered, these parlours contain some two score screens displaying the wallpapers imported from Britain and America, enabling clients rapidly and conveniently to compare designs and select those favoured. Stocks include specimens by leading designers of the world, and many selected patterns form the latest catalogues.

Victorian Hardware Assistants.

At the sixteenth annual meeting of the Victorian Hardware Assistants' Union, held on February 7, the following office-bearers and committee were appointed:

President, Mr. E. L. Taylour; vice-presidents, Messrs. A. E. Harding and T. Pattinson; auditor, Mr. H. Tindale; secretary, Mr. B. O. Livingston (re-elected); assistant secretary, Mr. G. Thomson; treasurer, Mr. A. H. Dean; retail committee, Messrs. R. Arneil, F. Chapman, F. Lee, E. G. Mason and L. Trewavis; wholesale committee, Messrs. W. Booker, H. G. Burrows, A. G. Chalmers, C. A. Wainwright and D. Wallace.

New Zealand Iron.

Opening an agricultural show at Takaka, the New Zealand Minister of Labour (Mr. G. J. Anderson) said the iron industry was one of the greatest in the district. Those not directly connected with the production of iron should nevertheless do all in their power to assist the industry. The more people there were in Onakaka the better it would be for the district. When farmers bought implements, did they see that they were made of Onakaka iron? Onakaka iron could be used in the manufacture of almost any metal goods, and it was the farmers' duty to see that any such goods they purchased were manufactured from iron produced within their own district.

Compulsory Training.

The following extract from the Commonwealth Defence Act sets out the liability of employers with regard to the compulsory training of their apprentices or assistants:

Any employee who is serving or liable to serve in the Senior Cadets shall be paid by his employer for any time he is absent from employment for the purpose of training, except the training required of the cadet for failure to become efficient or while undergoing confinement for any offence, but nothing in this section shall render an employer liable to pay an employee for any time when he is absent from employment for the purpose of training in the citizen forces.

Street Improvements in Wellington.

Some months ago the Wellington City Council, N.Z., decided to purchase two properties in Courtenay-place with a view to erecting tramway, ticket and administrative offices, waiting rooms and conveniences for both sexes. For obvious reasons the matter was not published at the time.

Now that the properties have been secured the civic intentions have been made public. The properties are within a few yards of Clyde Quay-square, and both carry old wooden buildings, the entire frontage being 60 ft. by a depth of 102 ft. As Courtenay-place is perhaps the most dangerous area in the city from the pedestrian standpoint, the new building proposals include the construction of a subway.

Melbourne Business Interests Amalgamated.

From March 1 the coach-building supplies, saddlery, and iron and steel business of Alexander Mair & Co. Pty. Ltd. have been amalgamated with Eliza Tinsley Pty. Ltd., and the headquarters of the Amalgamated concern will be the premises of the latter at 640-52 Bourke-street, Melbourne. The full trading title will be "Eliza Tinsley Pty. Ltd., incorporating coach department Alexander Mair & Co. Pty. Ltd." A combination of staffs has also been effected, and the country travellers of both firms will be retained. Mr. Harold Luxton joins the board of directors as representative of the Mair interests.

The motor accessory and wholesale hardware business of Alexander Mair & Co. Pty. Ltd. will be carried on from their present premises, McEwan House, Little Collins-street, as hitherto.

Tasmanian Carbide Works.

It was recently reported that a company had been formed in England to take over from the Tasmanian Government the carbide of calcium works at Electrona, near Hobart.

On the last day of February, the Australian press printed the following news: "Definite information in regard to the sale of the carbide works was received

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by the Premier (Mr. Lyons) on Saturday. A cable message from the Agent-General reported the receipt of a draft from the company's bankers for £51,725, including the first instalment of £24,600; and the price of the carbide stock, £27,125. In addition the company has paid the Ministry £2,000 in underwriting commissions on 40,000 preference shares. There will be two further instalments—one next month and the last on April 25. The total purchase price is about £130,000. The sum paid for the carbide stock was for 1,750 tons of first-class carbide, but there were several hundreds of tons of varying quality stock which the company has agreed to dispose of on commission."

Institute of Patent Attorneys.

The eighth annual meeting of the Institute of Patent Attorneys of Australia was held at Collins House, Melbourne, on February 18, when there was a good representation of members from the different States. A total membership of 112 was reported.

Regret was expressed that the Federal Parliament had again been unable to deal with the proposed amendments to the Patents and Trade Marks Acts which have required attention for some years, and regarding which many representations have been made from time to time by the Institute.

At the conclusion of the ordinary business, Sir John Monash addressed members on "The Economics of Electric Supply."

The following office-bearers were elected for the ensuing year: President, Mr. W. Sigmont (Melbourne); vice-presidents, Messrs. W. J. Sprüson (Sydney), and Arthur Griffith (Sydney); Council, Messrs. G. R. Cullen (Brisbane), L. B. Davies (Melbourne), W. J. Davis (Sydney), C. E. Graham (Sydney), C. W. LePlastrier (Melbourne), E. Waters (Melbourne), and the immediate past-president, Mr. C. A. Hack (Melbourne).

Railway Workshops in New Zealand.

The tender of McLean & Gray, of Wellington, has been accepted for the foundation work at the new Petone workshops, and that of J. T. Julian & Sons, of Auckland, for the work at Otahuhu. The contract prices were in the vicinity of £9,000 and £7,500 respectively. Tenders for the foundation at Addington and Hillside, in the South Island, closed some little time ago. Preliminary work in connection with the preparation of the sites for the new workshops at Petone and Otahuhu is proceeding satisfactorily, most of the drains having been put in. Some little time ago it was announced that Sir William Arrol & Co. Ltd., of Glasgow, in conjunction with Mr. P. C. Watt, of Wellington, had received the contract for the erection of the new locomotive repair shops at Petone at a cost of £200,000, that the tender of Dorman, Long & Co. Ltd., of Middlesbrough, in conjunction with Hansford & Mills, had been accepted for the construction of the new passenger car and wagon shops at Otahuhu, the price being about £150,000, and that Mr. W. McLellan, of Dunedin, had been given the contract for the erection of the new shops at Addington and Hillside, Sir William Arrol & Co. supplying the steel work. The contract price of the Addington and Hillside shops was about £200,000. Tenders will soon be called for the second year's quota of machinery for the new workshops.

Trade of the Commonwealth.

The quarterly summary of Australian Statistics (December, 1926) gives the value of the principal articles of merchandise imported during the December quarter, 1925 and 1926, and the first six months 1925-26 and 1926-27. Following are the lines of direct interest to our readers:

	December Quarter 1925	December Quarter 1926	First Six Months 1925-26	First Six Months 1926-27
	£	£	£	£
Cordage and Twines (excluding metal cordage	70,859	68,037	129,461	156,357
Fats, Waxes, etc.	65,553	70,105	126,574	138,981
Oils—				
Kerosene	256,220	307,718	486,934	608,558
Linseed	45,520	18,591	73,344	40,283
Lubricating (Mineral)	242,609	265,007	377,855	541,884
Petroleum Spirit	1,615,216	1,661,263	3,274,700	3,097,335
Turpentine	45,451	54,480	86,175	115,734
Other	252,871	351,934	497,515	671,638
Electrical Machinery and Appliances—				
Cable and Wire, Covered	330,735	504,971	522,550	993,084
Dynamo Electric Machines	249,719	291,550	464,257	558,689
Implements and Machinery (Agricultural, Horticultural, etc.)	295,115	246,377	513,254	428,318
Metal-working Machinery	110,196	148,284	189,405	339,683
Motive-power Machinery (except electric)	539,291	695,443	999,502	1,263,699
Printing Machinery	112,358	102,672	200,745	229,412
Sewing Machines	149,831	162,207	261,322	308,232
Yarn-making and Textile-making Machinery	90,579	134,539	150,692	256,763
Other Machines and Machinery	974,278	882,366	1,650,639	1,815,352
Alloys	102,512	115,635	172,703	202,498
Bolts and Nuts, Rivets and Washers	78,235	76,765	150,377	158,238
Iron and Steel—				
Bars, Rods, Hoop, Ingots, etc	251,112	193,678	452,554	429,012
Beams, Channels, Girders, Joists, etc.	106,162	42,423	159,919	77,381
Pig and Scrap	37,245	15,112	62,230	36,471
Pipes and Tubes	432,604	389,485	699,324	775,401
Plate and Sheet—				
Galvanized, Corrugated	405,350	364,427	808,954	782,783
Galvanised, Flat	111,7[illegible]	59,315	253,740	211,590
Plain	230,052	108,147	382,958	266,882
Tinned	350,553	320,606	609,368	520,240
Rails, Fishplates, Fishbolts, etc	9,881	8,903	31,605	21,844
Wire	159,261	162,570	255,613	353,963
Lamps and Lampware	135,073	146,766	257,584	275,471
Plated Ware and Cutlery	321,016	251,850	539,231	534,629
Tools of Trade (not being machines)	324,121	305,777	582,893	650,189
Other Metals and Metal Manufactures	1,283,028	1,109,445	2,383,759	2,340,327
Rubber Manufactures—				
Boot and Apparel Elastic; Rubber Thread	65,474	63,086	132,977	136,206
Cement (Portland)	23,051	17,090	35,310	32,663
Crockery and other Household Ware	245,032	201,406	427,917	379,491
Glass and Glassware	330,306	342,226	591,236	692,056
Other Earthenware, Cements, China and Stoneware	92,178	111,110	163,320	205,735
Brushware	142,854	150,471	248,188	307,081
Grand Total	42,431,001	42,473,173	76,791,395	83,996,163

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Victorian Hardware Club

A special meeting of members of the Victorian Hardware Club was held in the club rooms on February 16 at 8 p.m., in response to an urgent circular issued by the executive. Nearly 100 members were present, and keen interest was shown in the proceedings.

The platform was occupied by Mr. J. G. Black, president; and Messrs. Kearney and Myers the vice-presidents.

As indicated in the circular convening the meeting, the officers considered that the financial affairs of the club, although sound, were at a stage which required the fullest ventilation among members. It was evidently hoped that the throwing open of the meeting for discussion would result in the executive obtaining suggestions of value.

In his opening address, the president summarised the progress made in the affairs of the club during the six months since he and the new committee took office. At the same time he considered he had not had the whole-hearted support of members. He had sent out 800 circulars, asking members to take up debentures, and of this number only six had taken the trouble to reply. He did not see why they should have to pay 7 per cent. interest for money from the bank, when they might easily have what was required from their own members at 6 per cent.; an investment which would also be a good one for them. Reliable valuations of the club property showed that the investment was an excellent one; that if they sold in five years' time they would secure a big advance on the present cost. Not for a moment was it suggested, however, that it should be relinquished.

As chairman of the finance committee, Mr. Myers gave a statement of the club's affairs. He recapitulated the events which led up to the building of the new premises. It was at his suggestion that the club had been formed into a company, and the negotiations which were carried out in pursuit of this plan were a credit to the committee of that period. In this connection he gave the greatest praise to the secretary, Mr. Dempster, to whom they all owed a debt of gratitude. Without his exertions, this work could not have been done. The flotation of the necessary loan, the property dealings, and many other troubles were ably surmounted by him.

There had been raised, Mr. Myers continued, £7,000 of the club's own money; £20,000 on mortgage, and £20,000 by debentures. This was not yet sufficient. They required to place the finances on a more secure and sound basis. Another £7,000 was needed to attain this security, and although the Royal Bank were finding this money, the committee preferred members to take it up in debentures. If the whole business were now wound up, which they would not for a moment contemplate, everything would be paid in full. Talk of selling had been heard, but there was not the least necessity for this. If the revenue and expenditure continued during the remainder of the year as at present, they would be only £1,200 behind, and that was not a bad position for a new undertaking of such magnitude. The committee had made drastic preparations for the future, a reduction of £560 per annum being already effected. Moreover, their affairs could be so arranged that by the end of three years, when the mortgage matured, a saving of 1½ per cent. interest, equal to £300 yearly, could be made.

The remedy for all the club's troubles was that new members must be secured, and debentures placed. The assets were there. The premises were so built that two more storeys could be added if necessary, providing a warehouse of the highest class. He pointed out that even outside investors had shown their confidence in taking up debentures.

In answer to questions, Mr. Myers stated that the bank overdraft was £4,753, while £400 was still owing on the lift, £500 to the architect, and £1,500 for extras and contingencies. This gave a total of £7,153. There was no intention of making a compulsory call upon members, but something must be done if members did not respond voluntarily in the directions indicated.

Mr. Kearney reminded members of the enthusiasm with which the proposal to erect their own premises was received. The difficulties which occurred during the constructional period were recounted, also the delay caused through the collapse of an adjacent building. The new rooms were occupied while still unfinished, and this, although quite unavoidable, caused some unfavourable comment on the part of members. He emphasised the value of the secretary's services throughout these troubles. What they had to contend with in many cases was the apathy of those members who took what came, but showed no real interest in the club. It was the club spirit which they needed. The confidence displayed by such members as Mr. Alexander Macneil and Mr. Alexander Mair, who had invested large sums in debentures, was an evidence of the value of their property.

A motion was carried that a committee of nine be formed to make suggestions and arrange propaganda to bring in new members. A number of promises to take up debentures was secured within a few minutes. Mr. Alexander Mair said he would send a cheque for another £500, and Mr. L. J. Anderson, of John Danks & Son Pty. Ltd. announced that Sir Aaron Danks would subscribe £500 additional.

The meeting being thrown open for discussion, a speaker urged that employers should give more encouragement for their employees to join the club. His opinion was that principals did not like their men to be seen there. This militated against joining up new members.

Another speaker made the suggestion that each of 900 members should voluntarily assume the capital liability now existing. If each of these became responsible for a sum of, say, £10 at 6 per cent., this would represent an amount of £9000, or £540 interest per annum, the whole sum to be paid off in five years.

After much discussion, during which some plain speaking was indulged in, Mr. Alexander Mair moved that the meeting place on record their appreciation of the good work done by the secretary, and the hope that he might long be spared to carry on the work. This was seconded and carried with much enthusiasm.

Mr. W. B. Ridgeway, who had been for seventeen years on the club committee, spoke earnestly about the confidence he had in the soundness of the institution. As a business man he had shown that confidence by not only subscribing for debentures on his own account, but had also felt justified in asking his own friends to subscribe. He referred in the highest terms to the work of the secretary, Mr. Dempster, and created a surprise by announcing that although an increase of £50 annually in salary had been voted to the secretary, he had declined to accept it.

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Commonwealth Tariff Decisions

The following decisions of more or less interest to the hardware trade have been made during February. By way of explanation it should be mentioned that the double number on the left of each entry represents the tariff decision number, while the number to the immediate right is the tariff item, and the date following (7/2/27, and so on) the date on or from which the new decision took or takes effect:—

Machinery, Machines, etc.—

27/84 Spraying Apparatus, Field, Portable, consisting of Tank, Pump, Engine, and Hose, mounted on a special truck—
Engine .. .. 178 (d)
Hose .. .. 332 (b) 7/2/27
Balance 161
Note.—The reference to Spraying Machine, Field, "The Bean," in "Guide," page 226, is to be cancelled.

Shades—

27/86 Eye, for use while playing tennis, consisting of a framework of celluloid bound with textile for fitting over the head, and a peak of celluloid to shade the eyes. — 122 7/2/27

Machinery, Machines, etc.—

27/92 Compressor, Air, "Lectroflater," for garage and general use, consisting of a small air compressor driven by an electric motor which is integral, and rubber hose:—
Rubber Hose .. .. 332 (b) 14/2/27
Balace .. .. 176 (f)
Note.—T.D. 26/143 is to be cancelled.

Machinery, Machines, etc.—

27/99 Sandpapering Machines (Woodworking) .. .. 176 (f) 14/2/27
Any Sandpapering Machines, 4 drum and over, which were in direct transit Australia on 14/2/27 may, however, be admitted under Item 174. (By-law No. 1565).
Note.—T.D. 25/658 and By-law No. 879 are to be cancelled.

Paints, Colours, Varnishes, etc.—

27/100 Aluminium Paint, consisting of a liquid vehicle with powdered aluminium in suspension. — 226 14/2/27
Note.—T.D. 23/836 is to be cancelled.

Paints, Colours, Varnishes, etc.—

27/101 Gold Paint, not being Artists' colour, consisting of a liquid vehicle with metallic powder in suspension. — 226 14/2/27
Note.—Attention is directed to the decisions in "Guide," page 265, on Liquid Gold, and Gold Paint in shells, etc. T.D. 23/837 is to be cancelled.

Rivets—

27/104 Tubular, other than of copper .. .. — 182 14/2/27
Any tubular rivets which were in direct transit to Australia on 14/2/27 may, however, be admitted under Item 404. (By-law No. 1566).
Note.—The reference to Tubular Rivets in "Guide," page 34, in Consolidated By-laws, page 74, and in By-law No. 61, and the reference to Rivets for Boots, etc., in "Guide," page 321, are to be cancelled.

Hooks—

27/109 Screw, insulated .. .. — 186 21/2/27

Iron and Steel—

27/110 Angles, Steel, 2 inches x 2 inches x ⅛ inch, for use in the manufacture of windmills, under security. (By-law No. 1580). — 404 1/12/26

Iron and Steel—

27/111 Bars, viz.:—
Steel, Fluted, half-round (also known as "Crescent" or "U" Section Steel) for use in the manufacture of perambulator, tricycle, and similar wheels, under security. (By-law No. 1583). — 404 31/7/26
Note.—T.D. 26/674 and By-law No. 1396 are to be cancelled, as redundant.

Paints, Colours, Varnishes, etc.—

27/119 Oxide, Red, the f.o.b. value of which at port of shipment exceeds £15 per ton, for all purposes. — 404 21/2/27
T.D. 25/691 and By-law No. 895 are to be cancelled, and T.D. 26/6 and By-law No. 952 are to be amended by inserting after the word "except" the word "red," but any Red Oxide which but for this decision would have been admitted under Item 404 and which was in direct transit to Australia on 21st February, 1927, may be admitted under that Item. (By-law No. 1579).

Copper—

27/125 Strips, plain or tinned unpolished, measuring .011 inch x 1¼ inches x 100 feet, for use in the manufacture of Roller Shutters, under security. (By-law No. 1595). — 404 24/8/26

Electrical Appliances and Materials—

27/128 Chutes, Arc, for use in the manufacture of Fuse Boxes. (By-law No. 1594). — 404 30/9/26

Electrical Appliances and Materials—

27/129 Cords, flatlaid, cotton covered, with terminals affixed thereto, for use in the manufacture or repair of radio headsets. (By-law No. 1601). — 404 26/5/26
Note.—T.D. 25/64 as amended by T.D. 25/120 and By-law No. 508 are to be cancelled.

Electrical Appliances and Materials—

Cords for Loud Speakers for Wireless Receiving Sets—See "Telephones, Wireless—Loud Speakers," this group (T.D. 27/130).

Electrical Appliances and Materials—

27/130 Telephones, Wireless—
Loud Speakers, including cords with terminals affixed thereto, whether imported with the loud speakers or separately, for manufacture or repair of Wireless Receiving Sets. (By-law No. 1600). — 404 6/5/26
Note.—T.D. 25/650 and By-law No. 884 are to be cancelled.

Electrical Appliances and Materials—

27/131 Transformers, 88,000 volt capacity and over, for other than X-ray installations, under security. (By-law No. 1590). — 415a(2) 28/2/27
Note.—T.D. 26/511 and By-law No. 1290 are to be cancelled.

Electrical Appliances and Materials—

27/132 Reactors, Current Limiting, and Resistors for use therewith, for use on 6.600 volt circuits. (By-law No. 1593). — 415a(2) 8/6/26

Machinery, Machines, etc.—

27/133 Coiling Machines, Automatic, etc.—The date of operation "4/1/27" appearing in T.D. 27/91 is to be amended to read "14/1/27."

Machinery, Machines, etc.—

27/134 Motors, starting, 6 volt and 12 volt but not including spare parts thereof, for manufacture or repair of Motor Vehicles and Tractors. (By-law No. 1602). — 404 17/8/26

Machinery, Machines, etc.—

27/135 Rubber Working—
Cutting Machines, Washer, Automatic. (By-law No. 1592). — 174 26/11/26

Paints, Colours, Varnishes, etc.—

27/136 Oxide, Red, etc.—T.D. 27/119 is to be amended by inserting after the word "Red," the words "in dry colour form." — — 21/2/27

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Australasian Metal Markets

All prices are quoted for approved brands, duty and over charges included. For English prices, see The Month's Cablegrams on page 76.

Sydney, March 1, 1927.

February trading was restricted. There was very little activity in any of the regular shelf lines. Some merchant houses bought in parcels of rabbit traps and some transactions were noted in strychnine, but the general lines stocked by storekeepers showed no tendency towards buoyancy. While galvanised corrugated sheets have had little attention from spot stocks, there is considerable activity in the indent position, merchant houses being of opinion that stocks might not continue until arrivals of orders placed for shipment, and which are expected to arrive March-April, 1927. In heavy hardware legitimate trading has not been of much variation. The monthly totals do not indicate any liveliness in trade. In some directions for general lines prices were reduced to meet competition, and there are certain directions where heavier stocks are held than is desirable. Jute fabrics had a quiet month. No conspicuous features were reported. American turpentine for new seasons' shipment commencing May-June, 1927, had considerable variation in prices quoted from a different seller. The market has weakened and not much business has been written. There are discrepancies in prices quoted for resin ex ships afloat, and for goods to be shipped, and there is a margin between those prices and prices quoted ex spot holdings. Sufficient stocks of turpentine and resin are held to meet any ordinary demand for the next two months. Oils have been heavier in quantity than demand required, consequently there have been some reductions in stocks following a shading of prices for that purpose. There are apparent signs of an improvement in trade at date of writing, and merchants are of opinion that between now and Easter business will improve. Suburban storekeepers have had a satisfactory month for cash transactions. Reports indicate the usual total of sales in regular stock lines. It would seem that suburban traders have not had to compete so severely with the big retail distributors.

Auckland, February 28, 1927.

Hardware trade, both retail and wholesale, shows little change and can be classed as quiet. The slight improvement experienced during January has not been maintained and buying is restricted to actual requirements only. In the city residential building is quieter, although there are several large contracts in hand for business premises. Farmers show little inclination to buy while the prices of butter are on the low side. Prices in some instances are reduced. Bar iron is selling at £21, shoeing iron at £23, and steel at £21 per ton. Sales of pig iron have been made, mostly ex ship, while from stocks merchants are asking £7/10/- per ton. Black steel sheets are reduced £1 per ton, and are selling at £23/10/- basis. Corrugated iron remains unchanged, but plain galvanised sheets are lower at £32/10/- per ton basis. Fencing wires are firmer, English plain being now quoted at £18 per ton, which is 10/- higher than previously quoted. There has been a fair demand for white lead, which is easier at £60. Large stocks of linseed oil are held, and while 5/3 per gallon is asked, holders are prepared to take lower prices for parcels. Turpentine is now quoted at 7/6. Kerosene has advanced 6d. per case, and is now quoted at 14/9.

Christchurch, February 15, 1927.

Business in the city just now is almost at a standstill for various reasons. The exceptionally fine weather is giving farmers every opportunity to get their crops harvested and threshed. Banded together, they are working from daybreak to dark, in order to save paying for any labour they can avoid. As a consequence, country people are too busy to shop in the city, and the country stores are getting the business. The large drapery sales, held at the slackest part of the season to gather in some cash, have this year been rather a failure. Unemployment is still rather acute, largely because those looking for work are not eager to go to the country. The manufacturers of farm machinery approached the Prime Minister (Mr. J. G. Coates) on his return with a request that he should prevent cheap machinery being dumped into the Dominion. In spite of present conditions, everyone is most optimistic on account

NEW ZEALAND PRICES.

	Duty.	Auckland, Feb. 28	C'church Feb. 15	Dunedin, Feb. 22	Wellington Jan. 27
IRON—		£	£	£	£
Bar—					
English ..	Free	21	24/	24/	24
Shoeing ...	,,	23	25/	23/	25
Steel ...	,,	21	20	23/	18/6 to 25/
Pig	,,	7 10/	10/6	10/6	9/- to 10/-
Plate ...	,,	23 10/	25/	24/	24/6
Hoop ...	,,	24/, 35/	33/	32/	33
Sheet, Blk.	,,				
to 20-g. ...		23 10/, 24 10/	27/6	25/6	26.6
22 & 24 g.		25 10/	29/6	30/	26/6
Galv. Cor.—	2/-				
First ...		32	34/Builders	34/	33 10/
Second ...	,,	31	31/ ,,	33/	32 10/
Local ...	—	32	...	...	...
Do., Plain	Free	...	...		
24 & 26 g.		37/8, 34/	33/, 35/	40, 48 41	32 10/
Pipe—Galv.	Free	40%	45% off	42½	40% off
,, Black	,,	45%	50% off	50% off	50% off
Wire—	,,				
Galvd. ...	,,	16, 18	17/6	16/6	17/6 to 18/6
Black ...		16	16/6	15/6	
Barbed ...	,,	21, 23 10/	22/6 to 23/6	21/	25.6 to 26/6
Nails ...	2/4/- c	20/6	22/ 6	21 10/ to 23	23
,, N Z.		...	...		23
Lead—Pig	Free	36	42/6	55/	40/
,, Sheet	,,	42	50/	50/	60/
,, Shot	10/-	75/	80/	80/	75/
Tin—Ingot	Free	3/5	3/4	3/2	3/66
,, Plates	,,	35/6, 48/6	45/ I.X.	40/	37/
Zinc—Sheet	,,	9d. lb.	9d. lb.	8½d.	8½d
Quicksilver	—	...	6/6 lb	...	...
Cement—					
Imported	1/-cwt.	...	22/6 cask	...	...
Local bag	—	5/8	6/10	6/	5/11
Slates ,,	Free				
P. of Paris...	,,	27/6	32/6	28/6	27/6
White Lead	10%a.v.				
Best ...	—	60/	62/6 C4	67/ to 65/	69/ to 70/
Second ...	—	59/		...	68
Blst. Powder	Free	1/8	1/9	1/7	1/8
Rope— ...	20%				
Manila, Star	—	111/	111/	116/	111/
,, O. ...	—	107/	107/	112/	107/
Flax, N.Z. ...	—	81/, 88/	88/	88/	88/
Cornsacks ...	Free				
44-in. ...	—	...	...	13/3½	14/6
46-in. ...	—	...	14/9	13/11½	14/9
48-in. ...	—	16/6	15/	13/8½	15/
Woolpacks ...					
Full ...	Free	5/6	5/3	4/11½	5/3
Oils—					
Lins'd, raw	6d.	5/3	N.Z.4/8Eng4/11	5/	5/9
Castor ...	Free	5/-	6/	5/8	5/6
Colza ...	,,	7/9	8/	8/-	7/9
Kerosene ...	,,	14/9	14/9	14/9	14/3
Turpentine	,,	7/6	8/	8/-	7/6 to 8/

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of the huge harvest now being garnered, and the splendid prices recently procured from the wool clips. Not much building is going on just now owing to the state of the money market, but more activity may be expected when the harvest and wool clip money starts to circulate. Prices have not changed very much. Kerosene has advanced to 14/9 per case wholesale, a rise of 6d. per case, while petrol is going out to re-sellers at 16/4 for the better-known grades, and linseed and other makes of oils remain at previous rates. There is still much cutting of prices in paints and white lead, but this will rectify itself when stocks get lower. Piping is likely to witness another increase, as it is costing considerably more. Advances of piping and kindred plumbing lines, such as baths, basins, cisterns, sinks, etc., are now regulated by agreement between the Hardware and Plumbers' Associations, who decide on the lowest prices at which they can afford to sell these lines. Certain lines of bolts and nuts are also showing an increase, and it is probable that a fresh Dominion list will have to be compiled to meet the case. Ample stocks of fencing wires, and standards are being landed, in anticipation of the autumn fencing; also plough shares and other requirements for the ploughing season.

Dunedin, February 22, 1927.

Following the holiday season business is reluctant to get into its stride, although quite a number of important contracts will be entered upon in due course to the benefit of trade. Tenders are being invited for the erection of the Town Hall, a work that should be a credit to Dunedin. The railway workshops are also in course of extension and are employing a considerable number of artisans and labourers, while in the main thoroughfare of the city a £28,000 building contract is proceeding to provide for shops and office suites. The erection of private residences in the suburbs seems to be in steady progress and helps to maintain a steady demand for house furnishings and hardware requirements. Preparations for the reception of the Duke and Duchess of York are being arranged, and a gay and busy time is anticipated by the citizens. In regard to latest values little change has to be made on last month's list. Galvanised and corrugated iron has been placed on a higher plane, namely, 34/- for first and 33/- for second. Nails are ruling at from £21/10/- to £23. White lead, best, is 65/-. In oils, linseed, raw, is quoted at 5/-, castor at 5/9, kerosene at 14/9, and turpentine at 8/-.

Brisbane, February 24, 1927.

Owing to the disastrous floods in various parts of Queensland, plus the building trades strike, trade has been very erratic during the month. Heavy hardware has been slow. Prices are about the same as last report, but stocks are very low in many lines, notably plate steel, due to the aftermath of the overseas coal strike. Bar steel is also very short owing to the stoppage at Lithgow Works. Station supplies, such as wire, wire netting and barbed wire have received increased attention, and are likely to do so to a greater extent owing to the damage caused through floods. All builders' materials and ironmongery are very dull, owing to the restrictions caused by the strike. Prices are unchanged and stocks plentiful. Shelf goods have been fair, with prices generally unaltered, and stocks ample. White lead and oils are very slow owing to the painting trade being affected by a strike. Lead has fallen £2 per ton. Stocks are good. Sanitary materials and fittings have shown a marked improvement this month, with good stocks available and prices unchanged. Woolpacks are commencing to move freely in anticipation of the autumn shearing, although the quantity required is likely to fall much short of last year's demands owing to the heavy losses of sheep, variously estimated at up to ten millions. Stocks are in full supply. Carbide has been selling freely at the existing prices. Stocks are ample for some time to come, but overseas brands are on the light side. Although business has been depressed, as already stated, there is a general feeling of confidence that immediately things get back to normal, there will be a satisfactory all-round increase of business.

Adelaide, March 1, 1927.

Trade brightened up considerably at this centre during the month under review. The demand for mild steel reinforcing rods has been very strong, with the result that stocks are now practically exhausted, but several parcels are due here within the next week or two from overseas, which will relieve the position. Sales to arrive have been made at £16 per ton basis. Galvanised corrugated iron stocks have also been very short, with only one brand obtainable. The demand has been heavy, with the result that most sizes are now unprocurable, but here again with shipments to arrive during the next few weeks, merchants' stocks will soon include all sizes. Black steel sheets are short on the spot, and a parcel of 10g. realised £22. Fencing and barbed wires and nettings have been meeting with steady demand with good stocks available, but mild steel standards are very short, most sizes being unobtainable. A parcel of 1¼ in. x ¼ in., due to arrive early in March, changed hands at £15/15/-. A 5 cwt. parcel of ingot tin sold at 2/10, and a slight reduction was noted in all lead products. Galvanised tanks, both 200 and 400 gallon are scarce, one lot of five 200's realising £3/5/- each. Business in black and galvanised tubing has been rather quiet, only small lots changing hands at list prices. New season's turpentine prices are down, and lots of 25 cases on spot were sold in the vicinity of 5/8, while an odd parcel of English whiting to arrive has been sold at £8/10/-. Resin is also easing a little, 32/- being the price of a small lot of 10 cwt. American "G," which changed hands the other day. Carbide sales are steady.

Melbourne, March 2, 1927.

No great demand for iron and steel has been experienced in Melbourne during the past month, and prices are inclined to be easier if anything. Among the sales reported were 5 tons Australian bar iron, assorted sizes, at £17, and 15 tons steel plates assorted ¼ and $\frac{3}{16}$ in. at £16, while a few tons of black sheets 6 x 24 x 14 fetched £24, and a similar lot 6 x 36 x 16 reached £24/10/. A parcel of steel channels was sold for Interstate at £20 less 2½ per cent., and an assorted line of bright steel shafting at £25/10/- basis. Galvanised iron, which has been in demand, sold freely at prices up to £31. A number of parcels of 20 tons corrugated iron went at £28 and £28/10/-. During the next few weeks, however, quite a quantity of G. C. iron will be arriving at this port. Galvanised pipe found a very fair demand, and many lots changed hands. One handling was observed of 90,000 feet, sizes ranging from ⅜ to 2 in., at 55 per cent. off. At last sales noted ingot tin, in 2 ton lots, brought £296. Wire nails have been quoted at considerably lower prices. Many sales were made at £19; and a few parcels of about five tons at £18 for assorted sizes. Cement is still in good supply. It is pointed out by authorities that the Australian mills are capable of turning out more of this product than can be absorbed in the Commonwealth. The inquiry experienced for cement in Melbourne is consistently small for ordinary purposes; it is principally for public works that the main demand exists. Plaster continues to move slowly. A line of 200 casks of F. F. brand changed hands at 33/-. Trade has been quiet in fencing materials. It is not antici-

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pated that any big demand will ensue while the present dry weather continues. Barbed wire sold during the month as follows: 25 ton lots of 12 G at £22; 13 G, at £23; 14 G., at £23/10/-. No. 10 black fencing wire found buyers at £15/10/- less 2½ per cent., while 25 ton parcels of No. 8 galvanised went at £16 net. Wire netting had a fair demand, but the quantities were relatively small. In 3 mile lots the prices ruling were 12 x 1½ x 17 at £19/10/; 36 x 4 x 16 at 25/- per roll; 42 x 1½ x 17 at £41/10/- per mile; 30 x 4 x 16 at £19/5/-; 60 x 2 x 18 at £39/15/-; 48 x 2 x 18 at £29/15/-; 36 x 1½ x 18 at £27/5/-. Plumb's axes were on offer in several directions, ten case lots of 4-5 lb. selling at 96/-. Linseed oil has been in steady demand throughout the month, and although prices here are inclined to harden, overseas reports do not warrant any increase. It is stated that orders have been accepted for future deliveries at less than present quotations. Other lines which may be of interest were bran bags, which are coming to hand freely, and are quoted at 8/9, while large parcels have been booked at 8/6, and even as low as 8/- in some cases. Rabbit traps are finding buyers here and there. One or two sales of "Victor" traps were seen during the past week at 22/6, these in 25 dozens.

Perth, February 24, 1927.

Business has been very steady during the past month, and there has been a little easing of the scarcity in some lines that has prevailed owing to the coal strike. Sheet brass is being sold at present at 1/7 lb. basis, and brass rods at 1/6 lb. basis. There has been no change during the month in the price of mild steel bars, the rate being £20/12/6 per ton for a parcel of over 5 tons, with angles £1 advance, and shoeing £1 advance. Bar iron very scarce and practically unobtainable at present, is quoted nominally at £25 a ton. Carbide of calcium stands at £31, calcimo at 42/6 per case, and kerosene at 13/6 case for parcels of over 5 cases. Sheet lead has been reduced recently to £60/10/-, and in sympathy with the fall in the market of lead products, merchants have reduced the price of white lead, and for, say, a 2 ton parcel, the rate is £67 per ton, with the usual extras for smaller packages than 1 cwt. Cotterpins are 20 per cent., and iron wood screws are 5 per cent. on list. Victor lanterns are being sold at 47/6 dozen. Galvanised iron is unchanged and files remain at from 37½ per cent. to 45 per cent. off according to kind called for.

The Month's Cablegrams

Copper, Tin, and Silver. — The following table shows the quotations at the undermentioned dates, compared with those of the corresponding periods last year:—

Date.	Copper. Electrolytic. Per Ton.		Tin. Standard. Per Ton.		Silver. Standard. Per Ounce.	
	1926	1927.	1926.	1927.	1926.	1927
	£	£	£ s. d.	£ s. d.	d.	d.
Jan. 31..	64½–66	62–62½	275 7 6	292 2 6	31	27 3/16
Feb. 4..	65½–65¾	60½–60½	277 7 6	289 12 6	31⅛	27⅜
,, 10..	66¼–66¾	60½–61	284 12 6	308 2 6	31	26 13/16
,, 16..	67–67⅛	61⅛–61⅜	288 2 6	305 7 6	30⅞	26⅛
,, 22..	66½–67	61⅜–62¼	291 15 0	308 12 6	30⅞	26 3/16
,, 28..	66–66½	62¼–63¼	293 15 0	305 2 6	30⅛	26⅛
Mar. 3..	65½–65⅝	63–63¼	292 12 6	316 7 6	30⅜	25 15/16

The stocks of tin in the United Kingdom at the end of February were 13,068 tons, the deliveries for the month 1,809 tons, the quantity on spot 336 tons, and the quantity afloat 1,325 tons.

Lead.—In the London market soft foreign lead on spot has been quoted as follows: February 4, £26/6/3; February 10, £27/7/6; February 16, £27/7/6; February 22, £27/17/6; February 28, £28/10/-; March 3, £28/12/6.

For the month of January the imports of lead into the United Kingdom were 23,831 tons, including 6,206 tons from Australia. The exports were 1,698 tons.

Spelter.—The spot quotations for spelter, as cabled from London, have run as follows: February 4, £28/18/9; February 10, £29/10/-; February 16, £29/18/9; February 22, £30/7/6; February 28, £31; March 3, £31/2/6.

Tallow.—Following are the statistics for February and particulars of the latest auction sales:—

Feb.	Casks.	Date.	Casks Offered	Casks Sold.	Mutton, Med., per cwt.	Beef, Med. per. cwt
Imports		Feb. 2	1,008	315	35/6	35/
Deliver's		,, 9	936	213	35/	34/6
Stock		,, 16	Nil			
		,, 23	Nil			
		Mar. 2	1615	681	34/	34/

Electrical Notes from Melbourne

(By F. M. B., 50/202).

Electricity is coming into such demand that authorities are more or less making the supply "standard." That is to say, the current in most cases will be "alternating," and the "voltage" 230. To the average person both these terms may be unfamiliar.

"Voltage" is really the electromotive force or the "pressure," which causes electricity to flow in a circuit. The current flowing is measured in amperes. The product of volts and amperes will give the amount of power, which is termed in "watts." Now 1,000 watts, being used for one hour, is known as a kilowatt hour, and in turn this is called the kelvin, or Board of Trade unit.

In any shop may be seen a lamp marked "200 V. 100 W." The "200 V." signifies that that lamp was made for use on a circuit with a pressure of 200 volts. Were it used on a circuit of 230 volts pressure, the lamp would light more brilliantly for a while, but would then "burn out" quickly. The candle power would increase in greater proportion than the voltage. Again, if a lamp of 230 volts was used on a 200 V. circuit, the candlepower would be less in proportion to the decrease in voltage. At the same time the life of the lamp would be decreased. It is necessary to have a constant voltage. Dealers, at any rate, can solve the problem by keeping in stock lamps of the correct voltage.

Some clients may complain that their lamps burn out quickly, and when alight are very bright. Such complainants should be asked if they are anywhere near a substation. If they are a lamp of slightly higher voltage might be tried. This should be watched closely when the lamp in question is a gas filled type.

With reference to the "watts," it is possible to offer advice of the actual running costs. On the lamp mentioned "100 W." stands for 100 watts, and as 1,000 watts for one hour equals one unit, the lamp would have to burn for ten hours to use one unit. By dividing the number of watts into 1,000 we find the number of hours before one unit is used. If more than one lamp is used, the total number of watts are added together.

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Australian Market Prices

N.B.—The prices given in these columns are mostly those at which wholesale merchants are prepared to supply ordinary parcels to storekeepers, or other retail dealers. In a few cases we give the quotations of manufacturers or their agents. Preference as well as general duties are shown in the "Duty" column. The first rate is that on goods from the United Kingdom, and the second is the general rate on goods from foreign countries. "F" represents free, and "F 10 %" free from the United Kingdom and 10 % from other countries.

	Duty	Sydney Mar. 1	Melbourne Mar. 2	Adelaide Mar. 1	Brisbane Feb. 24
Pig Iron	20/. 40/	£	£	£	£
British		...	7 5/	...	...
Swedish		...	...	...	...
Lithgow		7 10/	7 5/	...	...
Newcastle		7 10/	7 5/	8	...
Bar and Rod	44/, 120/	22 basis	English 21	24 10/	22/10 basis
Australian		...	18/6	...	...
Mild Steel	44/. 120/				
Bar		19 10/basis	17 basis	19	18
Angles		19 10/	18	19 10	19
Tees		21	18	20 10	20
Hoops	F., 10%				
Black		20 basis	19 basis	19/6	21/ basis
Galv.		32/6 basis	35	38/6	31 10/
Galv. Corr. 24g.	20/, 60/	30/]	29 10/	29 10/	
Orb 26 g		30	31	31 10/	30 5/
,,		31 10/	31		31 10/
Adams Mars		...	...	29	...
Phoenix Cr.		29 15/	30	29 10/	32
Galv. Plain 24g.	20/, 60/	30/]			
Queen's Hd.		32/	31	32 10/	33
Phoenix Cr.		31 5/	33	...	...
Fleur-de-lis		31 10/	...	32	33
Other		....	31 10/	...	43/
Sheet	F., 125/				
Black		27 basis	25 basis	26	26
Baldwins		B26, G34 5/	26 10/	...	19
Plate	F., 120/	basis			
Steel		18 basis	15 basis	15	15 10/
Girder		19/6	21	19	21
Fencing Wire	F., 120/				
American 8		18 5/	18 5/	16	..
,, 10		19 5/	19 5/	17	...
Austra'n 8 Bl.		15 12/6	15	15 10/	16/
,, 10 ,,		16 12/6	15 10/	16	17/
Galv. 8		17 17/6	14 10/	18 10/	18 10/
,, 10		18 17/6	15 10/	19 10/	19 10/
,, 12		20 2/6	18 10/	20 15/	20
Barbed Wire,	68/, 180/				
Amern. 12-g.		21	...	...	25 10/
,, 14-g.		25 10/	...	...	26 10/
Austn. 12-g.		24 10/	23	26 15/	25 10/
,, 13-g.			24	27 15/	26
,, 14-g.		25 10/	25	28 5/	26 10/
Wire Netting	F., 200/				
36 x 1½ x 17	per. ton		36 15/	38 10/	
36 x 1½ x 18			29	37/	New
42 x 1½ x 17		15%	49 10/	...	List
42 x 1½ x 17		to	41 10/	...	
42 x 1½ x 18		20%	34	43/6	10 to 15%
36 x 1½ x 17		off	35	...	
36 x 1½ x 18		list	28	...	Off List
36 x 2 x 18			22 10/	31/6	
36 x 2 x 19			20	25/6	
Nails—					
Horshoe	12/, 15/	2½% on list	to 1/lb.	1/ less 10%	List Price
,, Austn.		...	List	...	plus 5%
Wire	5/6, 8/				
,, Austn.	or25%,35%	28/6 basis	20/ to 22/	24/6 to 35/	30/- basis
Roofing—	5/6, 8/				
Evenden		74 6 cwt.	65/cwt., 9/6	10/	11/
Lead-head		...	...	...	44/
Block Tin	Free	306	296	3/4	2/8
Tin Plates,					
28 x 20—	F., 10%				
I.C. Coke	28 x 20	112's 67/6	47/6	56's 39/ 37/	27/
I.X. Coke	56s	47/6	75	...	42/
Pig Lead	Free				
Austn.		34	42	40/	38/10
Sheet Lead	10%, 20%	46/	47 to 50	50	57
Dampcourse					
2–2½ lb.			52		
3 lb.			50		
Lead Pipe—	10%, 20%				
⅜ to 2in. coils		54/	52	55	68/
Soil Pipe		56/	54	57 10/	71/
Compo. ⅜ & up		56/	56	57 5/	69/
Copper—					
Ingots		...	70	97/6	10d.
Sheet	25%, 40%	1/6	1/7	1/8	1/8
Brass					
Sheet	25%, 40%	1/3	1/2 to 1/6	1/6	1/6

	Duty	Sydney Mar. 1	Melbourne Mar. 2	Adelaide Mar 1	Brisbane Feb. 24
Zinc—		£	£	£	£
Sheet 9 to 18g	25,% 40%				
(7 x 3 & 8 x 3)		67 10/	62 10/ to 65	69/	65/ cwt.
Perforated	35%, 45%	5/	7	...	5/6
Spelter	10%, 20%	32	...	54/	...
,, Elec....		32 to 38 10/	41 to 42	...	40/
,, Brazing	25%, 40%	1/9	1/5	...	1/9
Bolts & Nuts—		⅜" ½"	⅜ ½ ⅝		
Cuphead 3"		75/, 59/	63/ 47/ 41/		
,, 4"	35%, 50%	76/, 57/	61/ 46/ 39/	...	26/3 to 73/
,, 5"		70/, 54/	56/ 43/ 37/		
,, 6"		65/, 49/	52/ 39/ 35/		
,, 6½" to 9"		61/, 47/	49/ 38/ 34/		
,, 9½" to 12"		59/, 45/	47/ 36/ 32/		
Tanks, 400-gal.	Free	6 15/	5 15/		5
,, 200-gal.		3 10/	3		3
Tubing—	F., 10%				
Black, up to 3"		50 off list	55% off	58⅓off	List 45% off
" 3½ & up	27½		65% off	35 off	.. 5% on
Galv. up to 3"		46½ ,,	45% off	46⅔off	.. 10% off
" 3½ & up	27½	...	tst. List	20 off	Less 10% off
Steam, up to 3"		35 ,,	37½% off	37½off	.. 5% on
" 3½ & up	27½	...	5% off	20 off	.. 25% off
Wr'ght boil.		...	10% on	...	.. 15% on
Explosives—	F., 5%				5/
Hall's C.C.	10%	1/-	10½d.	1/-	1/1
Curtis's		10½d.	10½d.	1/0½	1/
Chilworth's		10½d.	10½d.	...	1/1
Sporting	15%, 25%	3/6, 4/6	2/9 to 4/6	3/6 to 4/11	3/6 to 5/3
Diam. S'less		10/	8/ to 8/6	8/3 to 8/6	5/
Amberite		8/6	7/ to 7/6	6/9 to 7/6	75/
Blast'g Gel.	F. 5%	74/6	74/6	74/6	79/6
Gel. Dyna.		66/	66/	66/	71/6
Gelignite		56/ to 59/6	56/ to 59/3	54/6 to 58/6	62/ to 65/
Dynamite		51/ to 57	51/ to 57/	46/6 to 51/6	...
Detonators	15%, 25%	55/	55 to 60/	60/ to 85/	58/ to 102/
Shot—Chilled	5/, 6/	68/	61	75/	90/
Australian		67/	56	...	...
Cyanide Pot.	Free	1/4	1/6	...	1/6
Quicksilver	Free	5/	5/6	6/-	6/-
Sash Weights	35%, 45%	16/	22/6	16/6	18/6
Sheep Shears	F., 10%	62/6	65/	60/	60
Cement—Impt'd	20%, 30%	25/ cask	21/6	22/6	21/ cask
Aust. (bags)			18/	7/4	6/6 bag
Plaster, Imp.	1/6, 2/c	37/6 K.W.	35/	47/6	50/ cask
,, Aust.		Pixie 35/-	8/	9/3	18/ bag
Slates (20 x 10)	30%, 40%				
White Lead—	8/, 10/, or				
Imported	25%, 30%	70/	75	71/6	76/
Australian		62/6	65/	61/6	69/
Zinc White	20%, 30%	...	70 to 100	...	72/, to 90/
Oils—					Colonial 56/
Linseed (raw)	9d., 1/		Drs.,		
Imported		R5/6	5/10	Drs., 5/9	5/4
Australian		C4/9 D 4/11	C., 5/-	Drs., 5/6	4/9
Colza	6d., 8d.				
Burning		...	6/-	...	
Castor—	9d., 1/				
½-cases		C 6/3	6/3	7/	6/4
China	2s., 2/6	...	8/	...	...
Cotton seed	6d., 8d.	..	8/6 to 10/	...	10/
Kero.—C.O.R.	Free	..	13/	...	...
Laurel		13/	13/6 to 14/6	13/	13/6
Light of Age		13/	13/6 to 14/6	13/6	13/6
Pennant		13/	13/6 to 14/6	13/	13/6
Turpentine	F.,	6/3	6/3	6/-	52/- c/s
Substitutes	½d., 1d.	3/	18/ per case	...	18/- c/s
Shellac		2/6	2/9	2/7	2/9
Whiting—	6d., 9d.				
English		9/	9/6	11/	£12 ton lots
Colonial		4/9	4/6	6/6	...
Resin, G grade	Free	38/6	38/	40/	37/6
Carbide—	80/, 150/				
"I X L"		30/	25/6	29 5/	29, 7/6
Scandinavian		33/-	27/6	34 10/	33
Canadian			...	...	...
Japanese		...	...	...	...
Bluestone—	100/, 200/				
Macclesfield		37/	37/	...	42/
Australian		36(1 cwt c/s)	...	37/6	...
Japanese		...	...		
Stock. Tar, 42 g.	25%, 35%		1/5	...	
Woolpacks—	Free	...		...	...
42 x 11½			6/	5/9	...
54 x 11½		4/3	5/	4/9	4/9
Cornsacks—	Free				
2¾ lbs. (Oats)		...		...	...
2¼ lbs		10/3	10/3	11/6	13/6
Branbags	Free	8/	8/	8/6	9/ to 10/

Small buyers requiring credit for broken parcels must expect to pay more than prices here quoted.

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Business Register

If you correct them monthly by these pages you will have lists more up-to-date than any Directory. Some leading firms do this.

New South Wales

Boswell & Co., manufacturers' representatives, have removed from 51 York-street, to 518 Kent-street, Sydney.

Australasian Press Metals, manufacturers of metal parts, etc., Oxford-street, Paddington, announce that the name of the firm has been changed to Australian Pressed Metals.

Tweengrip Tool Co., Australian and New Zealand representatives for the Tweengrip self-adjusting reversible spanner and general tools, have removed from 1 York-stret, Sydney, to more extensive premises at 5 Dalley-street.

Firms Registered.

Jeffrey & Hulme, general storekeepers, Wamboota; proprietor: John Jeffrey.

Lane Cove Hardware Store, ironmonger, Longueville-road, Lane Cove; proprietor: John L. Rowe.

Brigden & Dineen, ironfounders, Weston-road, Rozelle; proprietors: George H. Brigden and John Dineen.

Manly Grocery Co., grocers, ironmongers, etc., 110 Pittwater-road, Manly; proprietor: Joseph N. Feeney.

Bass & Corpe, wire fence and gate manufacturers, Albion-lane, Annandale; proprietors: George E. Corpe and Charles A. Corpe.

Brown's Bedsteads, bedstead manufacturer, 26 Parramatta-road, Camperdown. and 43 Flood-street, Leichhart; proprietress: Mrs. Susan Brown.

Boorman Bros., household ironmongers, china and glass dealers. 113 Oxford-street, Bondi Junction; proprietors: Ernest M. Boorman and Herbert J. Boorman.

T. Medlicott & Sons (Rozelle Galvanising Works), general sheet iron workers, 36-38 Foucart-street, Rozelle; proprietors: Frederick J. Medlicott and Richard W. Medlicott.

Done & Wade, steel manufacturers' representatives and general importers and exporters, 8 Bridge-street, Sydney; proprietors: Charles W. Done and Noel V. Wade.

Company News.

Perrot & Adams Ltd. have been registered with a capital of £20,000 in £1 shares. Objects: To purchase the business of machinery merchants formerly carried on by the late Frank R. Perrot. Subscribers: Harry Adams, Jessie Adams. May Adams, Annie Adams, Richard H. Brown, Arthur E. Bubb and Alfred M. Hemsley. Reg. office: Sydney.

Dux Electric Heaters (N.S.W.) Ltd. have been registered with a capital of £100,000 in £1 shares. Objects: To acquire from The Dux Electric Heaters Ltd. exclusive licenses to use and exploit and manufacture under certain letters patent in respect of devices for electric heating, and the business of the company for the State of New South Wales, etc. Subscribers Edward H. Turner, Ernest C. Steere, Eric D. Johnson, Edgar S. Bonham, George F. Amsberg, William Arnott and Maurice P. Brown. Reg. office: Sydney.

National Pump (Queensland) Ltd. have been registered with a capital of £100,000 in £1 shares. Objects: To acquire by agreement from James Syphonic Visible Measures, Ltd., the right to manufacture, use, exercise, and vend in the State of Queensland an invention entitled "Improvements in apparatus usable for measuring and dispensing liquids," etc. Subscribers: James G. McLaren, Sidney T. Hargreaves, Thomas C. Hubery, Alma C. Watson, Clifford Smith, Jean Bradley and Charles J. Lawler. Reg. office: Sydney.

National Pump (Victoria) Ltd. have been registered with a capital of £100,000 in £1 shares. Objects: To acquire by agreement from James Syphonic Visible Measures, Ltd., the right to manufacture, use, exercise and vend in the States of Victoria and Tasmania an invention entitled "Improvements in apparatus usable for measuring and dispensing liquids," etc. Subscribers: James G. McLaren, Sidney T. Hargraves, Thomas C. Hubery, Alma C. Watson, Thomas Griffiths, Enid M. Isaacs and Charles J. Lawlor. Reg. office: Sydney.

New Zealand

Company News.

Nixon & Anderson Ltd. have been registered with a capital of £2.500 in £1 shares. Objects: To acquire and take over the business of an engineer from John E. Nixon. Subscribers: J. E. Nixon and J. Anderson. Office: Gover-street, New Plymouth.

Queensland

Firms Registered.

J. M. Bauman & Co., gun and locksmiths. Albert and Elizabeth streets, Brisbane; proprietress: Louisa Wilson.

Cairns Machinery Co., importers of farm implements, etc., Cairns; proprietors: Ernest N. Ham, Charles Woodward, William J. Calder and Janet M. Warne.

Company News.

The Dalby Engineering Co. Ltd. have been registered with a capital of £2,000 in £1 shares. Objects: To carry on the business of electrical, mechanical and motor engineers, and manufacturers of and agents for automobiles, etc. Subscribers: John E. K. Warfield, Stewart Jack, Edward G. Heusler, Thomas P. Laxton, Susan I. Reithmuller, Norman Hall, and David Cahill. Reg. office: Ewings Buildings, Cunningham-street, Dalby.

South Australia

Universal Stores (Reginald Charles George Frankel and Cecil Reuben Ash), storekeepers, Cadell, have dissolved partnership by mutual consent. All debts will be received and paid by Cecil Reuben Ash, who will continue to carry on the business under the same style.

Firms Registered.

Bennetts' Store, general storekeepers, Torrens-road, Ovingham; proprietor: Ronald Hurle Bennetts.

Woods Bros., general storekeepers, Warooka-road, Yorketown; proprietor: Stuart Woods.

Burnard Bros., general storekeepers, Long Plains; proprietors: John Woolcock Burnard and Edward William Richard Burnard.

Company News.

Thomas & Wall Ltd. have been registered with a capital of £10,000 in £1 shares. Objects: To establish and carry on the business of merchants' manufacturers' agents, importers, general and commission agents, and to carry on the business of engineers, iron and brass founders, toolmakers, machinists, and wood workers, etc. Subscribers: Charles Henry Johnson, Robert Simes, Arthur Elliott Wall, Edward Lionel Thomas, and Frank Edward Thomas. Reg. office: 4 Chesser-street, Adelaide.

Ellis & Clark Ltd. have been registered with a capital of £30,000 in £1 shares. Objects: To purchase

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or otherwise acquire and take over as a going concern the business now carried on at Adelaide or elsewhere under the style of Ellis & Clark, and to carry into effect a certain agreement, etc. Subscribers: Edmund Sidney Clark, Ernest Montgomerie Martin, Lorna Gledstanes Martin, Andrew Davenport Clark, and Philip Erskine Clark. Reg. office: 95 Franklin-street, Adelaide.

Victoria

Jas. McLeod & Co., storekeepers, Rushworth, now occupy the premises recently vacated by J. F. Lynch.

Molden & Budden Pty. Ltd., manufacturers' agents, have removed from 364a Little Collins-street to Kirk's Buildings, Post Office-place and Relowe-street, Melbourne.

Bengough & Co., sheet metal workers, 29 Chirnside-street, West Footscray, announce that Albert Victor Bengough has retired and the name has been changed to A. M. Bengough & Co.

Firms Registered.

Ricardo Bros., brassfounders, 104 High-street, Preston; proprietor: Norman Melville Ricardo.

J. McLeod & Co., storekeepers, High-street, Rushworth; proprietors: James McLeod & Grace Alice Stewart.

Sheffield Supply Co., retailers of cutlery and general merchandise, 408 Collins-street, Melbourne; proprietors: David Julius Davis, Irene Louie Davis and Vincent Paul Williams.

Company News.

Aluminium Pty. Ltd. are in voluntary liquidation. J. A. Gray, 515 Collins-street, Melbourne, is the liquidator.

Alfred Adams & Co. Pty. Ltd. are in voluntary liquidation. Royden Richard Taylor and John Gordon Davis are the liquidators.

Star Distributors Pty. Ltd., mechanical engineers and metal workers, etc., have been registered with a capital of £10,000 in £1 shares. Subscribers: George Henry Cain and Margaret Lopez. Reg. office: 97 Queen-street, Melbourne.

Wimpole Metal Works Pty. Ltd. have been registered with a capital of £50,000 in £1 shares. Subscribers: Frederick Wimpole and Margaret Emily Kitz. Henry Geary Marriott and Michael Hauptmann are also directors. Reg. office: 46 Haig-street, South Melbourne.

Nelson's Pty. Ltd. have been registered with a capital of £10,000 in £1 shares. Objects: To take over the business of ironmonger and crockery merchants carried on at Northcote and Preston under style of "Nelson's." Subscribers: Ralph Hadley Nelson and Ralph Walter Nelson.

New Style Leadlights Pty. Ltd., manufacturers of glass window frames, cement, oils, paints, etc., have been registered with a capital of £15,000 in £1 shares. Subscribers: John Donaldson and James Goddard Lamb. Donald McLean, Fred Armytage, George Edgar Langford and Richard Joseph Bull are also directors.

The Alder Auto-Lock Pty. Ltd. have been registered with a capital of £20,000 in £1 shares. Objects: To acquire as a going concern the business of manufacturers of the "Alder Auto-Lock." Subscribers: Vernor Alder, James Adolphus Nelson and Christian Ernest Schieferdecker. Reg. office: 84 William-street, Melbourne.

A. G. Strauss & Co. Pty. Ltd., general storekeepers and merchants, have been registered with a capital of £30,000 in £1 shares. Objects: To acquire as a going concern the business carried on by Adolph Gottlieb Strauss at Rainbow and Yaapeet. Subscribers: Adolph Gottlieb Strauss, Anna Christina Strauss, Albert Percy Howlett, and John Otto Westphalen.

Western Australia

Cargeeg Trading Co., storekeepers and agents, Bruce Rock, have been registered under the Firms' Act; proprietor: Garfield Silverton Cargeeg.

Middlemas & Co., hardware merchants, Perth, and Cargeeg Bros., crockery and glassware merchants, Perth, announce that they intend to amalgamate their businesses during this month, and the businesses will then be formed into a limited company, the name of which has not yet been decided upon.

Travellers

In New Zealand.

Mr. Charles Wright, manufacturers' representative, 16 Hunter-street, Sydney, sails for New Zealand on February 25, on a business trip.

In Queensland.

Mr. C. R. Gibbs, of Gibbs Bros., Melbourne, is at present in Brisbane with a complete range of samples from the Derwent Foundry Co. Ltd.

In S.A.

Mr. C. H. Gibbs, of Gibbs Bros., is now in Adelaide with a range of "Qualcast" lawn mowers.

In Victoria.

Mr. Hollis Woollett and Mr. Thos. H. Ross, of Woollett & Ross, manufacturers' representatives, 119 York-street, Sydney, will be showing, during the first three weeks in March at Commerce House, Melbourne, full ranges of samples on behalf of their several principals, including some special designs in chinaware, manufactured by Redfern and Drakeford, England, for whom they have recently been appointed Australian representatives.

To Europe.

Mr. A. H. Nathan, of S. Hoffining and Co. Ltd., left Sydney by the R.M.S. "Naldera," early in February, on a holiday trip to Great Britain and the Continent. He is accompanied by Mrs. Nathan.

Mr. Albert C. Brandt, formerly managing director of Brandt Bros. Pty. Ltd., Melbourne, is leaving shortly by the R.M.S. "Otranto" for an extended tour abroad. Accompanied by Mrs. Brandt, he will spend some time in Europe and then return to Sydney by way of America.

Mr. C. O. White, of Hardware House, Melbourne, the representative of many important British manufacturers, will leave on a business trip to England and the Continent by the S.S. "Nestor" on April 2. During his absence from Australia, Mr. Leonard Cooper, his senior representative, will have charge of affairs.

Mr. Leslie J. Pain, of Bathurst House, Castlereagh-street, Sydney, leaves Sydney on March 19 with a full range of samples on behalf of his several principals, visiting Melbourne, Adelaide and Perth in that order. From Fremantle, on May 16, he will continue by the R.M.S. "Maloja" on a visit to the British manufacturers whom he represents. He proposes to return by way of America, and will probably be absent for about ten months.

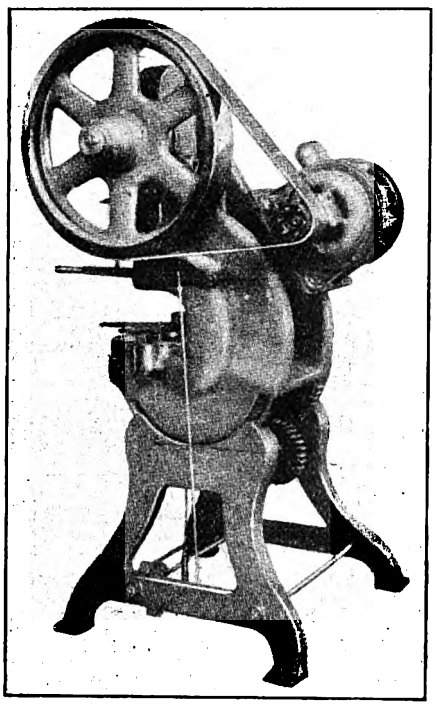
Mr. A. L. David, manager of Hawkes Bros. Pty. Ltd., has changed his plans regarding his business trip to America, England and the Continent. Mrs. David is to accompany her husband, and as the necessary accommodation could not be secured on the R.M.S. "Narkunda," Mr. David has cancelled his passage by that vessel and, with his wife, will leave Sydney on March 10 by the U.S.S. Co's motorship "Aorangi." From Vancouver they will journey overland to New York, visiting the Niagara Falls en route, and later sail for England and the Continent.

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Machinery

Motor Bracket for Presses.

The Standard Machinery Co., of Auburn, Rhode Island, U.S.A., have applied to some of their presses a trunnion-mounted motor bracket that allows some of the weight of the motor to be applied against the pull of the belt, so that the belt is always under uniform tension, regardless of its natural stretch.



The use of this bracket obviates the necessity of repeatedly shortening the belt or the use of an idler. A belt may run for its full life without adjustment, as the shifting of the bracket by gravity compensates for the stretch of the belt. In addition, the motor bearings are insured against undue overload. Provision is made to keep the motor bracket from turning completely over in case of belt breakage.

The same bracket may be attached rigidly to the top of the press frames in case a direct gear and pinion drive is desired.

"Ozalid" Printing Paper.

Eugene Dietzgen Co., of 954 Fullerton-avenue, Chicago, Ill., U.S.A., have developed a new printing paper, known as "Ozalid." It produces a positive print with a dark red line on a light cream background direct from the original tracing.

"Ozalid" is printed in the same way as blueprints, but is developed dry by brief exposure to ammonia-water vapour. Because of this manner of development it is claimed that the paper does not shrink or wrinkle and is true to scale. It also retains its original strength.

The print is non-fading, and can be shaded or coloured. It can be written on with ink or pencil. Prints made on thin "Ozalid" paper can be used for reproduction.

Electric Melting Pot.

The General Electric Co., of Schenectady, N.Y., U.S.A., have added a 1,000 lb. melting pot to their line. This pot, which utilises the electric heating principle, is the same as other standard General Electric pots, except that three cast in sheath-wire immersion-heating units are used instead of two.

Each heating unit is rated a 5 kw. The pot may be operated on 200 volt a.c. or d.c. circuits. The three heating units permit the pot to be used on three-phase systems also.

The pot consists of a sheet-steel casing, in which is supported a cast-iron crucible. The crucible is 18 in. in diameter and 15 in. deep, and the outside dimensions of the pot are 29 in. diameter and 31 in. deep. The space between the crucible and the casing is filled with a compact heat insulator. The leads of the heating unit are brought over the top of the pot into a connection box on the side.

The pot is designed for melting lead, babbit, tin, solder, and similar materials, with the exception of spelter or zinc, at all temperatures not exceeding 850 deg. F.

Separate heating units may be installed in existing plants where the dimensions permit, and the temperature does not exceed 850 deg. Fahr.

Corrugated Iron Shear.

Joseph I. Ryerson & Son Inc., of 16th and Rockwell streets, Chicago, Ill., U.S.A., are manufacturing a portable shear designed to cut corrugated iron without distortion. Whether a straight or curved cut is being made it requires no effort to feed the shear into the work.



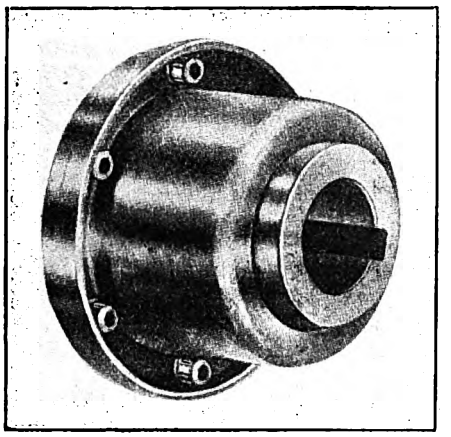
The cutting is accomplished by means of a pair of rotary double-edged cutters, knurled around the shearing edges. The upper cutter is driven by an internal ratchet operated by the handles, while the lower cutter runs free. The driven cutter is adjustable by means of a capscrew so as to ensure a continuous even feed on all sheets within its capacity, which is up to 20 gauge.

The tool can be withdrawn from the sheet at any point by loosening the adjusting screw on the upper cutter.

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Flexible Coupling.

The Falk Corporation of Milwaukee, Wis., U.S.A., offer a new flexible coupling, which it is said will prevent damage due to misalignment, while its torsional resiliency safeguards the driving unit from any destructive vibration of the driven machine.



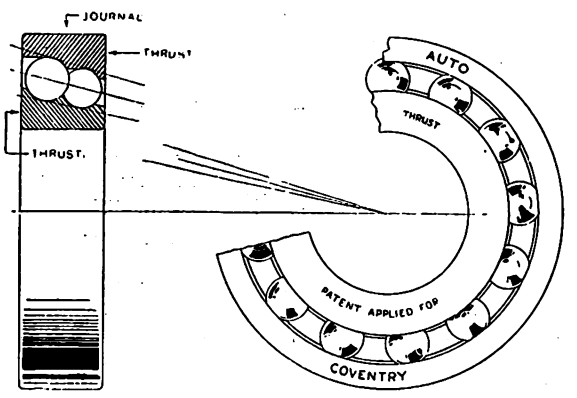
The coupling consists of two flanged steel discs, keyed to the respective shafts of the driver and driven units, the connecting pieces and a steel shell which encloses the whole and protects the coupling from dirt and, at the same time, retains the lubricant. The connecting pieces are tempered steel spring segments that fit into slots in the disc.

The coupling is made within very close limits. The construction enables the machine to be disconnected from the driver without disturbing either machine. Alignment of the coupling is accomplished by means of a short straight-edge and a set of feelers.

The coupling is obtainable in standard sizes, ranging from 1-3 to 30,000 h.p. at 100 revs. per min.

Dual Ball Bearings.

The Auto Machinery Co., of Coventry, England, are introducing dual or taper ball bearings. From the accompanying illustration, it can be seen that two rows of balls are used, the balls being staggered



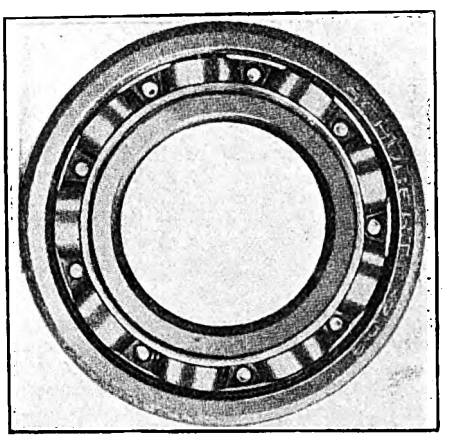
in arrangement and of different diameters, according to the row. One advantage claimed is that the bearing has great journal load carrying capacity, combined with appreciable thrust carrying capacity, the bearing carrying both loads on both rows of balls. The application mentioned include front hubs of motor cars and other cases where a combined load is met; the bearings, of course, avoiding the need for two separate bearings in such conditions. They are suitable for high-speeds and heavy combined duties and for duties where taper roller bearings are often used, a low coefficient of friction being claimed as compared with roller bearings.

The finished bearing is a complete unit and is interchangeable with existing standard sizes, being made to the same limits as the standard single-row ball bearing. Owing to the construction a large number of balls can be assembled. The inner and outer races are machined to suit, and a one-piece cage is used, using no rivets.

Under test this bearing has proven the theory that the number of balls is in direct ratio to the load carrying capacity of a ball bearing. They are obtainable in sizes ranging from ¼ to 6 in. for light, medium and heavy duties.

Ball Bearings.

The McGill Metal Co., of Valparaiso, Ind., U.S.A., are marketing a deep-groove type ball bearing in standard sizes, both single and double row. It is claimed that the dimensional tolerances have been reduced to one-half the standard S.A.E. tolerances, and that particular attention has been devoted to the finish of the high carbon alloy steel surfaces of the races and balls. Since the bearings are of the deep-groove non-filling slot type, they are capable of carrying axial loads, or thrust loads, in either direction.



The retainer of the bearings is made of McGill metal, which is a modified aluminium bronze that may be diecast within small tolerances. The metal has physical properties closely approximating mild steel. It is claimed that with this high strength and ductility, together with lightness, it is possible to use smaller sections. The decrease in weight of the retainer is important, especially at high speed.

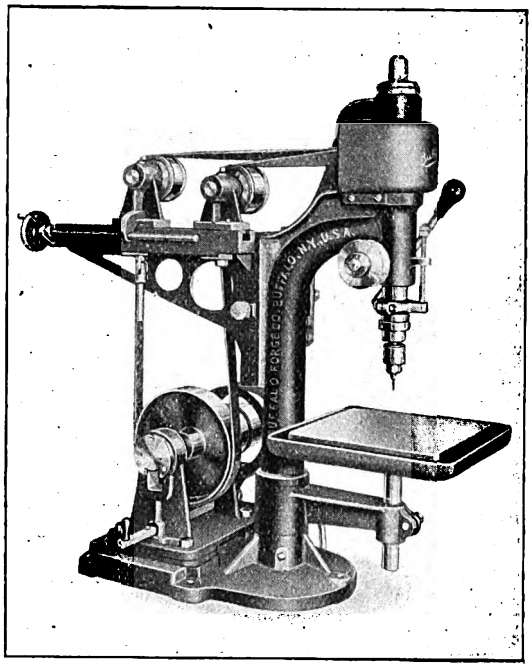
It is further claimed that the high inherent heat conductivity of the bronze tends to dissipate any heat localised at the contact of the ball. The use of bronze is said to result in a lower coefficient of friction. To further reduce friction between the balls and the retainer, the ball pockets are cylindrical and the ball contacts with the retainer in a line.

The retainer is supported on the ground and polished band of the inner ring.

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New "Buffalo" Drill.

A new 12 in. high speed drill has been designed by the Buffalo Forge Co., Buffalo, N.Y. U.S.A., to run at spindle speeds up to 10,000 r.p.m. Four different speeds—3,600, 4,800, 7,200, and 10,000—are quickly and easily obtainable.



The construction of this new "Buffalo" drill is simplified in a way to effect noteworthy economies in production and operation. The design is based on a half-century's experience in the production and use of all types of drills from the smallest hand drill to the 25 in. power drills for heavy production. In fact this one drill of itself represents over two years of experiment and trial in the company's own shops before it was released for distribution.

The new drill effects big economies in production, not only by higher speed but also by increased accuracy and fewer breakages. It enables the operator to get the maximum cutting efficiency out of his drills by running them at the correct speeds for the different materials and sizes. Change from one speed to any other of the four is quickly made by a lever and quick acting screw. This encourages the operator to change to the efficient speed for the work he is performing.

Drilling is faster and safer with this model because it is not necessary to force or crowd the drill. This results in fewer breakages and better work. It is particularly recommended for production work, while automatic industries, instrument makers, and similar manufacturers find it specially valuable.

In order to make a drill which will stand up under the enormous stresses of 10,000 R.P.M., every part must be of the best material, correctly designed and accurately finished. Ball bearings are used throughout, and the drill is equipped with a No. 30 Jacobs balanced chuck with capacity from 0 to 5/16".

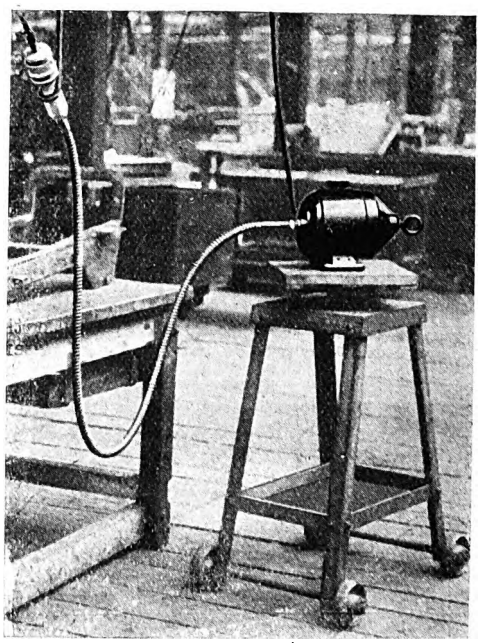
The drill is also being built for direct motor drive, using a ½-h.p. electric motor.

Before being sent out every drill is tested at 12,000 R.P.M., to insure a positively dependable margin of safety at its highest operating speed of 10,000 R.P.M.

The overall height of the drill is 34 in.; the travel of spindle 3½ in.; the spindle diameter $\frac{7}{16}$ in.; the maximum height of spindle to table 6½ in.; the speed of drive pulleys, 1800 R.P.M.; the number of speeds four (10,000, 7,200, 4,800, 3,600); the maximum speed recommended 10,000 R.P.M.; the net weight 215 lbs.; and it drills to the centre of a 12 in. circle.

Power-Driven Tools.

Mr. T. Alexander Borthwick, manufacturers' representatives, Royal Exchange Buildings, Bridge-street, Sydney, is introducing new "Flextol" power driven hand tools for woodworking and other uses. A feature of these tools is that the motor is not incorporated in the tool itself, as the illustration shows, but is arranged so that it can be either suspended from a hook put on a table or fitted into a counter-balanced frame which admits of the tool being placed aside by the operator when not in use. For all general purposes, types A. and B. hand pieces, as they are designated, are interchangeable on the same flexible shaft with their various fittings. Type A. will drive all sizes of wood and metal screws up to $\frac{5}{16}$ in. Whitworth, set all set-screws and nuts up to ⅝ in. diameter and bore holes in wood and metal up to $\frac{3}{16}$ in. for the former and ½ in. for the latter. This type embodies a five to one reduction of speed which, with the standard motor, can be operated at 300 r.p.m.



The operator has complete control and it is impossible to over-drive it. Type B. will drill holes in metal up to ¼ in. and is also suitable for grinding, buffing, wood-milling and disc or cylindrical sand papering. The flexible shaft is specially designed to withstand rough handling. It is provided with a ball thrust and revolves in a metallic casing lined with strip. The standard length of the shaft is 9 ft. but extra lengths can be supplied if required. "Flextol" tools can be made suitable for the refacing of stone buildings, and at a test one square yard was worked in twenty minutes.

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Publications Received

Pocket Diary.

A pocket diary for 1927 has been issued by "The Hardware Trade Journal," one of the papers published by Benn Bros. Ltd., of Bouverie House, 154-60 Fleet-street, London, E.C.4. A handy, well-bound little volume of coat-pocket size, it contains a good deal of general information, as well as a buyers' guide, limited to the firms doing business with the journal. The diary proper is of serviceable ruling, a week to a page, and following this comes a smaller number of memoranda pages. No advertisements appear and the price is half a crown.

Aluminium Facts and Figures.

Under this title the British Aluminium Co. Ltd., of Adelaide House, King William-street, London, E.C. 4, issue a little volume packed with information about aluminium. Ordinary letterpress, tables of figures, and illustrations of forms and sections are all employed to enlighten the person who has any interest in aluminium and secures a copy of this little book, which is rivet-bound in stiff covers.

Although our copy reaches us through our London office, it should be added that W. G. Watson & Co. Ltd., of Sydney and Melbourne, are agents for these manufacturers.

Sporting Arms and Ammunition.

From Noyes Bros. (Sydney) Ltd., who, with their related firm, Noyes Bros. (Melb.) Pty. Ltd., are the Australian agents for the goods represented, we have a booklet dealing with sporting arms, revolvers and ammunition with which to load them—all of American manufacture. The manufacturers listed alphabetically are the Hunter Arms Co., of Fulton, N.Y. (the L. C. Smith shot guns); Iver Johnson's Arms & Cycle Works, of Fitchburg, Mass.; the Marlin Firearms Corporation of New Haven, Conn.; and the Western Cartridge Co., of East Alton, Ill. Illustrated particulars of the goods of each of these makers are given in this little publication.

The Morris Runway.

Herbert Morris Ltd., of Loughborough, England, have issued a booklet of 32 pages, 9 x 6, illustrating some of the uses of their overhead runway. These runways can be applied to a great variety of purposes, indoor and outdoor, and any mechanic of average skill can place them in position. Different forms and fittings are available, and the person in need of an installation orders what he requires in track, hangers, and other equipment. No mechanical drawing is called for, nor even a rough sketch. While strong and effective in operation the runway is very flexible and can be readily adapted to any position.

Noyes Bros. (Melb.) Pty. Ltd. are the local agents.

The Crown Bulletin.

Dated January of the present year, a little twelve-page paper called "The Crown Bulletin" has been issued by the Crown Stove and Foundry Co., of Hawthorne-street, Woolloongabba, Brisbane. The issuing firm are makers of the "Crown" stoves, and the brochure now before us is published in the interests of these household requisites. Eight different models for gas and solid fuel are illustrated at the central opening, eight of the seventy distinct designs which the firm claim to produce. Informative in contents and well-proudced by the printer, the "Bulletin" should meet the ends which the publishers have in view, keep them in closer touch with old customers and help them to make new ones throughout the wide-spreading State of Queensland.

Composition Floorings.

The Magnesian Flooring Materials Association, of 106 Fenchurch-street, London, E.C.3, have issued a book setting out "facts in relation to jointless flooring and magnesian composition." As far back as 1867 it was discovered that a rocklike material suitable for structural purposes could be secured by mixing calcined magnesia with a solution of magnesium chloride. Based essentially on this discovery, jointless flooring has been in use for many years in different parts of the world.

Besides the two materials mentioned filling or "aggregate" goes to the making of such floors, and by varying the materials or the relative quantities of the materials, floors of different degrees of hardness and other physical features can be obtained. Not only so but different colours and shades are possible with this composition. It is hygienic, fire-resisting, seamless, resilient, easily laid, warm to the touch, and comparatively low in cost. In the United States the composition is used as stucco for the exterior of buildings, as well as for floors, but in Great Britain it is chiefly, if not exclusively, used for flooring purposes. The book now before us gives illustrations of its use on ship board as well as on shore. Experience during the past twenty-five years has yielded certain facts regarding the properties and application of the material, and the object of this publication is to set these out for the benefit of those interested.

Our copy reaches us through our London office.

British Ropes.

Taking the place of the vest-pocket diary hitherto issued by Thos. & Wm. Smith Ltd., of Newcastle-on-Tyne, we have a similar volume covering 1927 from British Ropes Ltd., an affiliation of several British makers of ropes and allied products in steel and vegetable fibre. The natty little volume carries the usual conveniences, including the slide out fastener and self-registering pencil.

With head office at 32 Cavendish-square, London, W1, British Ropes Ltd., includes Allan, Whyte & Co., of Rutherglen; the Bristol Wire Rope Co. Ltd., of Bristol; W. B. Brown & Co. (Bankhall) Ltd., of Liverpool; Bullivant & Co. Ltd., of Dagenham Dock; the Caledonian Wire Rope Co. Ltd., of Airdrie; the Charlton Rope Works Ltd., of London; Geo. Cradock & Co. Ltd., of Wakefield; Craven & Speeding Bros. Ltd., of Sunderland; J. T. Davis Ltd., of London; the Edinburgh Roperie & Sailcloth Co. Ltd., of Leith; Edwin Ellis & Co. Ltd., of Dagenham Dock; Frost Bros. Ltd., of London; W. D. Houghton & Co. Ltd., of Warrington; the Excelsior Wire Rope Co. Ltd., of Cardiff; Haggie Bros. Ltd., of Gateshead-on-Tyne; D. H. & G. Haggie Ltd., of Sunderland; R. S. Newall & Son Ltd., of Liverpool; Fredk. W. Scott & Co. Ltd., of Reddish; Thos. & Wm. Smith Ltd., of Newcastle-on-Tyne; the South Wales Ropework Co. Ltd., of Cardiff; John Stephens & Son Ltd., of Falmouth; the Warrington Wire Rope Works Ltd., of Liverpool; and Wilkins Wire & Wire Ropes Ltd., of Eastwood.

Our copy comes to hand with the compliments of B. K. Morton Pty. Ltd., Melbourne, Sydney and Wellington (N.Z.), who are distributors to the Australian Wire Rope Works Ltd., of Newcastle.

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Saddlery and Stable Requisites

Buyers' Notes for Retail Dealers

Sydney

Mr. Frank Arnold, of 226 Pitt-street, Sydney, specialises in racing saddlery mainly of his own manufacture. In saddles for turf use is a select line, including exercise or trotting saddles of correct weight in Newmarket style in different numbers, and variously fitted and finished.

Stirrups with open or cradle bottom, spurs with loop side and droop neck or buckle side and straight neck, Myers and American Dee bits and wire ring bradoon, and the "Stalker" pattern bit for hard pullers with tender mouth, together with every sort of horse boot and other necessary equipment, are included in the racing goods.

The "Aboyeur" patent girth, surcingle and roller, manufactured by Mr. Arnold, obviates tight girthing, permitting the animal natural breathing expansion, with obvious speed advantage; it exerts even pressure so that the saddle doesn't slip, burst, nor do the straps break.

Edward Bentley & Sons Ltd., of Fitzroy-street, Marrickville, Sydney, under their "Elephant" brand, make plough reins, plough line in coils, and halters of all kings, including adjustable, all in suitable fibres.

Brandt Bros. Ltd., of 236 Pitt-street, Sydney, in stable requisites feature buggy lamps of English make, black japanned as to finish and with silver reflector; in these, also English made, is an oval fancy shape of buggy lamp. Special is the "Anti-Candle" kerosene drop socket which does away with candle and burns steadily for hours. The firm manufacture an acetylene buggy lamp which fits in ordinary sockets, is nickelplated, finely finished and handsome in appearance. It disseminates a bright white light similar to a motor headlight. To charge these lamps granulated carbide is stocked in 1 lb. tins to suit. Waggon and cab lamps, together with replacement parts for these, are in stock and repairs are effected.

Briscoe & Co. Ltd., of 383-85 Kent-street, Sydney, who mainly confine their activities to the agricultural section of saddlery, report the arrival of fresh supplies of everything in the way of chains for ploughs, drays and carts, under such well-known names as "Acco," Priest and T. P. Jones. "Kangaroo" hames for all hame purposes are available, as are hame straps, breeching and hobble straps. Rope accessories to ploughing mainly come in coils and made-up reins in the usual hemp, manila, sisal, cotton, and other fibres, embracing in range, also horse halters, horse ties and leg ropes.

Butlers & John Brush Ltd., of 371 George-street, Sydney, accord customary prominence to their genuine Wienecke saddlery, so autograph-stamped. Among these productions the "Buckjumper" is described as the "Rolls Royce of stock saddles," having seat with 4½ in. dip, 6½ in. knee-pads, and 3 in. thigh-pads. The "Gulf Champion," too, is a high-class stock saddle of perfect shape and fit, made on an English tree, of rough out hide or kip, with narrow waist and extra high set knee pads. These are only two of many saddles available from this firm for riders of both sexes.

All racing and other horse requisites are available, including whips of different kinds. The harness shown includes "Pioneer" plough harness of good service and real value; and farm shaft harness of best harness leather. In station team harness are the "Federal" leading harness and the "Simplex" spider style; also the patent orchard harness without loose chains to entangle the legs of the horse in turning.

Among the rugs is the firm's own "Eureka" for outdoor in "all weather" weight of Thompson's No. 1 super white bleached flax canvas, Kersey lined in various sizes; and the racing weight of white duck similarly lined and sized. Cheaper rugs for horse or kine is the "Handy," of brown canvas lined, with warm felt, and the "Popular," of heavy white duck or green waterproof canvas, both in the sizes enumerated.

Farleigh, Nettheim & Co., of 80 Clarence-street, Sydney, stock a "Mimosa" park saddle in London colour flaps and skirts and hogskin seat and pads, and a great variety of others for men and boys.

With these are stirrup leather, blue saddle cloth and Kersey check. Harness is available for sulkies, spring carts, and other horse-drawn vehicles. Bridles complete with bits, are of different brands and sizes, while straps of all kinds are well stocked.

Agricultural goods include leading harness, bands, cruppers, reins and plough couplings. Plough chains bear such names as Jones and Wheway. Collars are of various weights and makes, and there are winkers, whips and such stable requisites as drags, curry combs and brushes of different kinds.

A. Forsyth & Co. Ltd., of 339 Kent-street, Sydney, stock plough reins of braided cotton, best New Zealand flax, manila hemp and yacht manila, and also as plough line in coils. Halters are of manila in 7½, 9, 10, and 12-ft. lead, and of flax in 6, 7½, 9 and 10-ft. lead, and in sizes in conformity with the length.

W. S. Friend & Co., of 113 York-street, Sydney, stock all tools and materials the saddlery trade requires. Saddlery, which is seasonal largely throughout the year, is specially so in the ploughing and cultivation seasons, and for these purposes the "Kangaroo" or "Empire" unbreakable hames are special, coming as leader hame, full-cased with bolt and nut joint, and also half-cased with staple joint. Plough, trace, hobble, and such chains of first-class makes, split links and other repair accessories, and japanned rings for bolting or screwing into the manger, are available.

So is harness in a variety of forms and for a variety of purposes, light and heavy. For dray or shaft harness are Liverpool and Demi-Scotch collars, winkers with and without reins, Scotch winkers with strapped eye; brass mounted saddle with wood or iron trough; belly bands, reins, breechings with double hip straps, and hame straps. To fetter vehicles are 1¼ in. wheel straps with spring hook; and for wagonette, buggy and stripper are pole straps in suitable sizes.



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Saddles, breast plates, snaffles, stirrup irons, spurs, buckles are among the goods in this department stocked by the firm.

Grimley Ltd., of "Monarch House," Broadway, Glebe, Sydney, now brand their saddlery and leather goods with the name "Monarch." A park saddle with hogskin seat and short Victoria panel is only one of many saddles offered by the firm. All patterns are here and all ages can be suited both male and female.

Pad cloths come in a half score of varieties for gig, cab or buggy saddles, in patent leather, blue or fawn, bound or beaded, or bound any colour. And for saddles are Alexandra bead, nickel or brass, also London bead of the same metals in 3½ and 5 in. sizes. Harness and every part for these are equally comprehensive, amounting to some fourteen kinds, saffron, black or nut brown, with nickel furniture and variously fitted according to price.

All saddlers' ironmongery and the "Wheel" brand hames, together with Grimley's tested trace and plough chains, are in stock. Stallion outfit such as bridle in stained leather; stallion chain with McCabe's patent hook; and with the same hook is bar and chain. Jute, cotton, union and linen rollers are in assorted colours. Clothing includes suits of Princess check in assorted dark and light patterns, and sheets of fawn wool rugging, and Princess check in assorted colours. All saddlers' requisites from saddle and buggy trees, curry combs, all kinds of whips and crops, polishes and preservatives for saddlery, and horse remedies, are available.

Hill, Magill Ltd., of 131-33 York-street, Sydney, offer supplies of such stock lines as chains of all kinds for horse work, and hames by Eliza Tinsley and T. P. Jones. Hame straps of brown leather come with japanned buckles, for spring cart with brass buckles, and nickel-plated buckles to set off the black buggy straps; all straps are in suitable and usual widths. A good assortment of equine gear includes stirrup leathers of various kinds; martingales, cruppers and such like, and stirrups and bits. Fitted bridles, heads and reins, including Pelham bridles and Barcoo heads, are stocked. Seasonal for agriculturists come plough back bands. Leading harness, also for carts, and all bands, spiders and such necessaries for harness, are here and so, too, collars for use with buggy, spring cart, sulky and other vehicles and agricultural implements.

S. Hoffnung & Co. Ltd., of 163 Pitt-street, Sydney, are as usual well stocked with saddlery and requisites. Cart and buggy crops are in wide variety —more than eight different kinds. Chains, too, are in comprehensive array, such names as Jones & Lloyd and T. P. Jones being noticeable. In leader hames are a variety of branded lines, and there are unbranded good also for different purposes. Hame hooks are "Lion" and "Kangaroo" unbreakable; and others, unbreakable, too, for van or pit hames. All kinds of straps in various leathers, eighteen styles of spurs to suit all ideas, the "Newmarket" solid leather head collar, with tinned mounts, and the "Albert" round throat lined check and with N.P. buckles, are in stock, together with all saddlers' ironmongery.

In the usual kinds of cordage, halters and reins, ties and leg ropes are in stock. Suits of clothing, complete with quartersheet, hood, roller and fillet string, are in linen and princess check. The "Protector" rug is the firm's own brand. Horse clipping machines include the Burman, of British, and the Stewart, of American make.

Holdsworth, Macpherson & Co., of 252 George-street, Sydney, have available a fine assortment of saddles for all kinds of mounts. Bridles from racing bradoon to Barcoo—English heads and reins and Australian bridle—breastplate and martingale, are in wide variety of patterns and in qualities to suit all preferences. Boots and pads, girth, surcingles, and all similar appurtenances, and the firm's own "Dagger" dressing for tan or black harness, in quart and pint tins, are available.

Harness and all the accessories that go therewith, for every kind of vehicle and horse, offer for selection a variety of some dozens of different sets, all of merit. Parts of harness, traces and reins are in stock, including plough lines of cotton, hemp and flax, in all grades and variations of these fibres, and with spring hooks. Whip thongs for buggy, cart, hunting, ordinary stock thongs, with falls, four and six-horse, extra fine stock thongs of snake shape, ordinary snake stock thongs are in all plaits and lengths, and for these come the required materials.

John Keep & Sons Ltd., of 104-08 Sussex-street, Sydney, stock different kinds of hames from the Tiger works of Thos. P. Jones. Special in this kind of horse furniture is a short, knob-top hame, full-cased, branded "Dingo," also a pit hame with loop chain bottom. The brands of Wheway and Griffiths also appear on the various kinds of chains for horse use, sufficiently indicating quality. Horseshoes in all sizes and nails for these are from Australian and American works. As protection against irritating flies are veils for all sizes of horses, including a veil with leather forehead band branded "Dingo." Plough reins include a special under the firm's own brand ("Dingo"), ten fathoms long, of braided white cotton. Halters come in all the favourites of fibre laid into cordage for the purpose; and in paper wrapper are fitted plough reins of steam-tarred branded cotton. Saddlers' ironmongery is available and also a firm-branded axle grease.

McPherson's Pty. Ltd., of 51-65 Bathurst-street, Sydney, have the "Stewart" No. 1 ball-bearing horse clipping machine, whose distinctive features are a new patent clipping head and flexible shaft. On tripod stand, the clipper is of upright type with dustproof gear case enclosing gears, which are cut from the solid bar and hardened to file hardness, and which run in an oil bath; the knife is one-nut, balance pressure type; the flexible shaft is of oil-tempered light running type and a fathom long. The new patent clipping head requires less tension than other clipping heads; that is to say, it turns easier and the knives stay sharp and last longer. This machine serves equally well in dairying districts as a cow clipper. By substituting a sheep shearing shaft and shearing head for the flexible shaft and cutter-head, the machine serves excellently for hand shearing of sheep.

Front and hind shoes for horses are in all sizes. Clip toes are in stock, and horseshoe nails from No. 4 to 14 and in length from 1⅞ to 3½, in 28 lb. boxes. English made farriers' knives and "searchers" are of best quality blade in bone handle.

O. Prendergast & Co., of 410 Kent-street, Sydney, under the "Emu" brand, manufacture to stock their special varieties of plough lines, reins, halters and pig nets, of fibres specially selected for these various specific purposes.

J. Scott & Co. Ltd., of 163 Clarence-street, Sydney, specialise in sisal plough lines, 1 and 1⅛ in. in circumferance, and supplied in coils which carry the "Renown" brand.

Smith, Copeland & Co. Ltd., of 33-37 Regent-street, Sydney, offer at specially reduced prices such saddlery specialities as macrame loin nets in buggy, horse and pony sizes, and horse flyveils.

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Paddock headstall and basil veil, twisted, is with throat strap only; twisted with throat strap and noseband; twisted, extra strong, complete bridle; or untwisted with throat strap and nose band; also bridle veil for draught horse, and a cheap line of buggy horse winker veils. Made of best flax canvas is a 15-inch horse neck bag, and this also of best leather, while saddle bags 12 and 15-inch sizes, for which leather flaps are extra, are of best flax canvas.

Plough reins are of braided cotton and other fibres, and horse ties and horse halters are also made from different materials. Bound with double London braid are saddle cloths shaped or square, of best Kersey. Nose bags are of canvas with leather bottom brought well up the sides. Horse rugs are a line in which the firm have specialised for many years, their "Aberdeen" brand being well known.

Mr. J. P. Talty is now located at 6 Cunningham-street, off Goulburn-street, Sydney, whence he supplies all harness parts, including winkers, reins, saddles, britchings, britching straps, and all other parts for sulky or buggy. Spring cart parts are equally complete, and include cab saddles and girth with Atherton plate, while parts for dray and lead harness are comprehensively stocked.

Whips and thongs are a big line with Mr. Talty, all requirements being met. Saddle cloths include any colour saddle serge in three weights. Spurs, stirrup irons and bits are in assortment, including Dexter mouth and Scott's patent irons. Horse boots, pacing hobbles and double and single hobble straps are regularly stocked. Cart collars, saddles, and harness are available for all classes of vehicle and size of horse.

S. Walder Ltd., of 340 Pitt-street, Sydney, make nose bags 9 in. in diameter by 20 in. long, plain of navy canvas, and of the same material with roped bottom. Horse halters with woven head are in different varieties and of different materials. Plough reins are with spring hooks made up of 54 ft. long, in the coil, and horse ties of various fibres and in 9 ft. lengths.

Sweat pads, collar shaped to fit, are made and fitted with four spring clips. Saddle cloths 38 x 25 in., are in fancy Dover or Fancy Kersey check and blue serge, each bound in royal colours. Waterproof rugs are in various qualities; there are half a dozen sizes New Zealand rugs with felt lining, leather straps and straight surcingles; various qualities of horse rugs and the special patent "Fitzesy" in four different qualities.

Walther & Stevenson Ltd., of 395 George-street, Sydney, meet the farming season with such saddlery as the pursuit demands. Leading cart and plough harness (and spare hooks for hames) include ordinary full-cased hames to 32 in. long; unbreakable full-case hame for cart or lead with brazed drafts and 32 or 34 in.; and orchard or low-top pit hames, with loop at top and chain at bottom. By Jones are tested leading and body and plough chains; the same class of chains electrically welded, and chains for all allied purposes are available.

Collars are shown in great variety, and winkers are almost as comprehensive. Then there are white cable laid plough reins, white braided cotton and leather plough reins; and white rope and leather couplings for plough horses. A farm leading harness is made up of winkers, full-cased hames and straps, piped collar, belly band and 3-in lead back, and electrically welded 18 lb. chains. A station leading harness effectively composed, has leading 22 lb. chain of similar welding. Harness is available for every imaginable kind of vehicle, and saddles are varied enough to satisfy any need or fancy.

Melbourne

Blockey, Stone & Co. Pty. Ltd., of 268a Lonsdale-street, Melbourne, carry in their hardware department many items in saddlers' ironmongery. These include useful stock lines for the retail store, such as horse brushes and combs, leather pastes and polishes, straps and stirrup irons, as well as bits and bridles. In addition to halters and plough reins, all patterns of plough chains are stocked, as well as tug and trace chains. Short knob top hames and van hames are represented in the well-known English makes.

W. Day & Son, of 401 Post Office-place, Melbourne, are long-established makers of all saddlery requirements. An important section of the business is that devoted to horse and cattle covers and rugs. The various details and accessories, such as straps and fittings, are given special attention, the leather parts being strong, of good quality, and well sewn. Linings are of wool and cotton, or of the better grade check, as ordered.

Considerable demand still exists for riding saddles, a good selection being always on hand. The inquiry experienced is largely for a light type saddle, strongly constructed to stand hard wear. The firm have several such designs at moderate prices. Bridles are a stock line, and these are manufactured in every pattern from the plainest to the more highly finished article, with fancy stitching and mountings. In riding gear there are also the equipment such as stirrup irons and leather spurs, girths and straps.

Among a number of useful accessories stocked are halters, head stalls, plough reins, and leg ropes. Whips are of all kinds, ranging from the plain handled drivers' variety through all classes to the fancy whips and riding crops.

The firm have for some years given special attention to the manufacture of buggy rugs. These are usually of oiled canvas or rubber and canvas, the more recent demand being for a light class of rug, thoroughly waterproof and lined with woollen material for warmth. They are finished in excellent style, and are of good appearance.

"Lyddy" brand dressings for leather goods and harness are well known to the trade. These preparations are made by the firm, and also O.B.B. dressing, fat black, saddle soap and paste.

Edward Duckett & Sons, of 376 Lonsdale-street, Melbourne, stock all lines of saddlers' ironmongery and many accessories of the trade. Prominent makes of English hames and parts, of all the usual patterns, are regularly arriving. In plough and trace chains the leading maker represented is J. Wheway & Son Ltd., but several other popular brands will also be found in stock.

In addition to the various ropes, ties and halters, a complete list of stable requisites is included in this department. Some of the best-known lines in curry combs, mane combs, and dandy brushes are available for buyers. Martin's horse clippers are a reliable line, supplied in either the hand type or the larger stand variety.

The firm are large suppliers of Bidwell's axle grease, and also handle the Australian brands, together with such preparations as harness dressing, neatsfoot oils and polishes for all purposes.

Mr. George Hagley, of Wright's-lane, Melbourne, remains one of the best known manufacturers of special gear for trotters and pacers, as well as many of the usual requisites of the saddlery and harness trade. Light harness, suited for trotting purposes, is generally made to order. Stocks are available, however, of several useful patterns. These are produced in best grade leathers, specially sewn for strength and reliability.

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Many appliances for protective purposes, such as knee and shin pads and boots, are of either rubber or leather. In the case of animals with tender mouths, bits are stocked which are less severe in use than the ordinary type. Rugs and covers for cows or horses are always available, while covers of exceptional quality, handsomely finished and lined, are on hand for valuable stock or race horses.

As agent for W. F. Young Inc., of U.S.A., Mr. Hagley carries good supplies of "Absorbine," a preparation used with great success on sprains, injuries or swellings. This specific is considered worthy of a place in any country store, as many farmers report speedy cures in cases where an injured horse could be badly spared during harvesting.

Mr. Hagley's own remedy, known as "Hopple Chafe Specific," is used for saddle galls or chafing. It is an antiseptic liquid, which forms a protective film over an injury, giving comfort to the horse while healing takes place without interruption.

J. Higson & Sons, of 125-27 Flinders-lane, Melbourne, are designers and manufacturers of every class of harness, and have a long acquaintance with the needs of country buyers. The supply of buggy and cart harness forms a considerable part of their operations, many useful types having been evolved to meet local conditions.

As with harness, the firm are supplying riding saddles which meet with approval amongst riders. The aim is to provide a good article of strong make and well finished at a moderate figure. In several cases the result achieved has been marked, and a first rate saddle is now turned out at quite a low price.

A feature is made by this firm of the production of horse collars which are well fitted, contributing to the ease of the animal. This is achieved by providing the correct shape for different horses.

In the cover department the new season finds the firm busy in turning out horse and cattle rugs. A patent fastening, which is fitted to all covers, is devised to give an automatic clip, combining safety with free movement.

Included in the leather ware supplies are all the necessary riding and driving equipment. A host of different patterns of bridles, winkers, straps and the like are displayed, also such articles as waterproof rugs, all kinds of oilskin driving coats, leggings, and similar lines.

In the ironmongery department are stocked all the necessary plough and trace chains, hames, stirrup irons, spurs and buckles, while for the groom there are curry combs and horse body brushes and harness preparations.

J. S. Kidd & Co. Pty. Ltd., 410-12 Lonsdale-street, Melbourne, have on hand a full supply of trace chains and plough and tug chains of British make, in all weights. Shipments have now arrived of hames and parts in the van and leader patterns. These are now available from stock.

All necessary cordage is of Australian make; plough reins of plain or braided jute or white cotton fitted with snap hooks. Halters have adjustable heads, and are in various fibres and several patterns.

The sundries include curry combs and dandy brushes, also various preparations such as harness dressings, neatsfoot oil and polish.

The firm are large handlers of horse shoes, the special line stocked being Muir's, which are obtainable in all sizes. Both American and Australian horse shoe nails are carried at all times.

Michaelis, Hallenstein & Co. Pty. Ltd., of 441 Lonsdale-street, Melbourne, are able to offer practically all requisites for horses and horse drawn vehicles. In addition to saddlers' ironmongery, of which a complete stock is kept, they are the makers of all leather goods, materials for the purpose being drawn from their own tanneries. At the moment, the ploughing season is in full swing, and horse collars, plough hames, chains, and reins are in demand. Full supplies are maintained of all these lines. In riding equipment a large display is to be seen at the show rooms. Saddles are one of the prominent features, many different styles being offered which have been approved by Australian riders. Bridles, bits, spurs and other accessories are in every pattern. The various details for riders, gloves. leggings and straps, are well represented.

Several large manufacturers of whips in England having given up business, the firm have purchased all their finished goods. These were obtained at a considerable discount off ruling prices, and exceptional values are now offering for local buyers. The choice of many good patterns is available, and an opportunity is given to dealers who wish to replenish stocks. The firm also specialise in kangaroo and green hide plaited hunting stocks and bullock whips.

A new line which is being shown just now is a spliceless leather plough rein. This is approved by many users, while the special rubberised rein is still popular in many quarters. Those interested in coursing will find a novelty in a recently designed salopian slip, or dog starter. An improvement is shown over many other types in the length of the strap, which enables the user to keep his dogs together.

For drivers or motorists an excellent leather coat has been produced by this company. Made of specially soft leather, dressed for the purpose at their tannery, although of flexible material, similar to glove hide, it is still claimed to be entirely waterproof.

Minor articles which are useful stock for the storekeeper include dandy brushes, curry combs, and polishes and dressings for all kinds of leather and metal. Stable brushware is available in every necessary line. The usual cane and bass brooms are for hard wear, while several lighter patterns may be had for odd jobs. Dandy brushes are of various fibres, and in better class bristles one or two numbers have superior wearing qualities.

Cordage and rope articles such as horse and cattle ties and halters, may be ordered either in flax or manilla fibres, as well as in cotton. Horse feed bags are made of canvas, or canvas and leather in better grades. A number of handy stable preparations are carried in stock; reliable dressings and polishes for harness and equipment, and for veterinary uses there are gall cures, hoof dressings and liniment.

Full supplies of axle grease, soft soap and neatsfoot oil are always here. Amongst the sundries chamois leathers should not be overlooked. These are available in either large skins or small, and in several grades to suit the users.

Thos. Mitchell & Co. Pty. Ltd., of 360-66 Lonsdale-street, Melbourne, are manufacturers of brooms and brushes for all purposes, including those for stable use. In the department devoted to bass and other stiff fibred brooms, many advances have been made in the direction of reducing costs while still retaining the qualities of material and construction. In the cane and fibre section the best results have been experienced in combining these two substances, giving an article which will stand the roughest usage on hard floors. Several good patterns are faced with cane, while in other makes bassine is the basis of the broom. This latter material is valuable for asphalt floors, giving specially long service.

The selection of dandy brushes is very complete. Lines are made to meet the inquiry for a cheap

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brush, while others are available of good bristle, all being firmly fixed by a special process which has given every satisfaction to users. A shipment of curry combs just opened gives a fine choice in this line. They range from the heavy comb to the lightest, and the combination of comb and mane drag is now selling constantly.

The firm have made full provision for the coming season in horse and cattle covers, which are an important feature of this department. Made to the firm's own specifications, these covers incorporate the best points known to the trade. The materials in use are first class canvas or Birkmyre cloth, lined according to quality and price. Driving rugs and other covers are also supplied.

In the hardware section ample stocks are maintained of stable and manure forks. The American patterns are largely called for, and long or short handled articles are offering. All the usual requirements in plough and trace chains, as well as plough reins, halters and cordage generally may be ordered, while requisites include axle grease of imported or local production, dressings and pastes for leather and metal. T. M. B. dressing has been found to be a good, reliable preparation, and is always kept on hand. Whips and whip thongs are of all kinds, a recent shipment containing a full selection from English makers.

James Oaten Pty. Ltd., of 184 Queen-street, Melbourne, are importers of saddlers' ironmongery in all its branches. Complete stocks are held of Wheway's back chains, trace plough and hobble chains. These are swivel fitted, as also are the lorry pole and bright tug chains.

All patterns of hames are represented in the stocks here displayed, from the best-known English makers.

As manufacturers of leather goods the firm have concentrated upon this branch of the trade for many years, and the selection of draught and cart harness, bridles, saddles and leather accessories generally is most complete. In the heavy class of harness and equipment they are amongst the largest holders of these goods, and are always in a position to supply in quantities.

Several of their specially made riding saddles have proved good selling lines. There are saddles such as the "Queensland Park," suited for rough work, yet light and well-balanced. The "Poly Buck Jump" is another favourite type, also the "Bully Breaker," and "Queensland Breaker." In addition to the usual make of these brands they are supplied in the exercise weight, and with high up pads when ordered. The "Bully Breaker" is fitted with 4½ in. solid leather seamed pads, giving it great strength and durability. The same saddle may be had with folded girth.

The variety of bridles, straps and accessories is almost endless, while full supplies of whips and thongs, leggings and other leather articles are invariably on hand.

For the winter season the factory is now busy turning out horse and cow rugs and covers. This department has evolved several special fittings, ensuring comfort and security. In all patterns good quality of canvas is used, and linings are supplied either of cotton or all wool check as required. All stable accessories, curry combs, dandy brushes, leather and harness dressings, pastes and metal polishes are carried by the firm.

George Russell Pty. Ltd., of 452 Flinders-street, Melbourne, report stocks of saddlers' hardware and harness supplies, including plough and leader chains, electrically welded. The brands carried are "Acme" and "McKinnon."

Of leader and van hames the patterns include "Boomerang," "Austral," "Kangaroo," and "Climax," all reliable lines and of good quality. Other accessories noted were tinned winker bits, and bit snaps, both round and square type. Tug and back chains are kept in Wheway's make, electric-welded.

In sundries and stable requisites the principal items, which are constantly on hand, are curry combs and dandy brushes. Here the best British makes are preferred. The curry cumb most in request is the combined comb and mane drag, an excellent type being obtainable, very strong, yet light, and at a moderate cost. Every kind of dandy brush may be found in either bristle or fibre.

Brooms of fibre, bass and cane, or combinations of either are now opened; also a good stock of stable forks. The latter are in both 4 and 5 prong patterns, long or D handle.

Good Australian made ropes and cordage include all halters and ties, as well as leg ropes and plough reins in every class of fibre as well as in cotton.

Several useful lines of harness polish are worth a place in the country store. O.B.B. polish and "Coacholine" find favour always with buyers, while Bickmore's gall cure has long been known for its healing properties.

Eliza Tinsley Pty. Ltd., incorporating this side of the business of Alexander Mair & Co. Pty. Ltd. will hereafter carry full supplies of all saddlery and harness and saddlers' ironmongery at their address 644-52 Bourke-street, Melbourne. The stocks of these goods are being removed from the one warehouse to the other, and Mr. Auld, who had charge of this department of the Mair business at the top of Elizabeth-street, holds a similar position with Tinsley. Being close to the Spencer-street railway station, the new address should prove a convenience to country buyers.

A complete range of saddlers' ironmongery will be well displayed, and large supplies of all the requirements of the saddlery and harness trade are to be constantly maintained. In addition to general lines, there will be a large selection of the leather sundries and accessories which accompany the trade. Many attractive articles, such as travelling bags, riding and driving gloves, straps of all kinds, and leggings will be open for inspection within the next week or so, and it is confidently anticipated that this joining of the two interests will make for good service and prompt supply.

Cracked Yet Sonorous.

The bell of "Big Ben" in the tower at Westminster was put up 66 years ago. A short time after it had been hung it cracked. The crack was about ten inches long and under a quarter of an inch wide. It has not extended, but was purposely widened somewhat so as to improve the vibrations. The bell weighs thirteen tons. No material improvement would be effected by recasting the bell, and it would be a very expensive proceeding.

Kettles Given Away.

Early in November last a branch hardware store was opened by Mr. W. Newman at Westcliff, England. By way of advertising the new shop, Mr. Newman announced that on the opening day every purchaser of half a crown's worth of goods would be presented with a kettle. An enormous queue assembled before the doors opened and within two hours one thousand kettles had been given away. The assistants could hardly move for the crowd of customers. Still they came, and before closing time nearly another thousand kettles had gone.

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Advertisers will kindly note that all alterations to Advertisements should reach us by the 25th of the month.

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Death of Mr. B. D. Scarth.

Mr. Benjamin Dawson Scarth, who was for many years prominent in the steel trade of New South Wales, died on March 26, at his residence, "Leeholm," Veret-street, Hunters Hill, Sydney, at the age of 72 years. Born at Sherwell, Leeds, England, the late Mr. Scarth came to Australia when a boy. For some time after his arrival he was employed in the railway workshops at Newcastle, and later founded the Pioneer Spring Co. Ltd., with which he was associated as managing director. He was one of the founders of Vickers' Commonwealth Steel Products Ltd., on the board of directors of which he served until the time of his death.

New Process for Recovery of Molybendite.

A rapidly increasing amount of molybdenum is being used in the manufacture of alloy steels, to which, in conjuction with other metals, molybdenum imparts many desirable properties. Much smaller amounts of molybdenum are used in metallic form for electrical equipment, in non-ferrous alloys, and in chemical reagents, dyes, and various other chemical products.

Two new leaching methods for the recovery of molybdenite from the ore have been carefully tested recently by the Bureau of Mines of the United States Department of Commerce, and are believed to have commercial possibilities.

In one of the methods tested, the procedure is to extract the ore with hot soda solution, acidify with sulphuric acid, add a small amount of sodium acetate, and digest with lead sulphate. Molybdenum is completely precipitated as lead molybdate, which can be converted to molybdenum trioxide.

In the other process the ore is extracted with warm, dilute sulphuric acid, and the free acid completely neutralised with scrap iron. Molybdenum is completely precipitated as a hydrate of molybdenum dioxide nearly pure.

By treating the hot roasted ore with chlorine, practically complete separation of the molybdenum from all other ore constituents is obtained in one operation. The distillate is quite pure, and is easily converted to molybdenum trioxide or calcium molybdate. The consumption of chlorine need not be heavy, and the regeneration of chlorine for repeated use seems possible.

Details of this investigation are given in Bureau of Mines Technical Paper 399, "Recovery of Molybdenite from the Ore," which may be obtained from the Superintendent of Documents, Washington, D.C., at a price of 5 cents.

The production of molybdenite in New South Wales during the year 1924 amounted to 10½ tons, valued at £2,475, and the total production of this mineral since its discovery is stated at 821 tons, valued at £210,111. In Victoria, 42 tons of concentrates, valued at £4,850, were produced in 1924. The production in Queensland for the same year was 2¾ tons, valued at £441. The Wombah Mine, near Mount Perry, is regarded by geologists as one of the most promising sources of molybdenite in Australia. A small quantity was at one time produced in South Australia and Western Australia, but no production has been recorded recently. In the Northern Territory molybdenite is found at Yenberrie, where it is stated that the ore increases in richness as the workings become deeper.—"News Bulletin," issued by the Commonwealth Department of Markets and Migration.

Foreign Exchanges.

Foreign rates of exchange in London for cable transfer on the centres and dates indicated, compare as follows:—

Par.	—	—	Mar. 21	Mar. 24	Mar. 28	Apr. 4
4.886	New York	Dols. to £	4.85⅝	4.85 21/32	4.85¾	4.85 11/16
4.866	Montreal	Dols. to £	4.85 11/16	4.85⅝	4.85½	4.85 7/16
25.225	Paris	Frcs. to £	124.00	124.03	124.00	124.00
35.000	Brussels	Bels. to £	34.93	34.94	34.94	34.94
25.225	Rome	Lire to £	107.68	105.63	105.80	101.70
12.107	Amsterdam	Florin to £	12.13½	12.13⅜	12.14	12.14¼
12.107	Batavia	Gul. to £	12.13	12.13	12.13½	12.13½
18.159	Stockholm	Kron. to £	18.14	18.13	18.13	18.12
18.159	Oslo	Kron. to £	18.59	18.61	18.63	18.69
18.159	Copenhagen	Kron. to £	18.22	18.21	18.21	18.20
20.43	Berlin	Gmks. to £	20.46	20.46	20.48	20.49
24	Calcutta	Pen. to rup.	18	18	18	17 11/16
24.58	Yokohama	Pen. to yen.	24.00	23¾	24	24⅛
*	Hongkong	Pen to dol.	24 1/16	24 1/16	24 1/16	24⅛

* Par depends on rise and fall in price of Silver.

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A Certain Seller

CALCIMO
THE ORIGINAL COLD WATER KALSOMINE
Wholesale Distributors for Victoria:
BROOKS, ROBINSON & Co. Ltd.
59-65 Elizabeth Street, Melbourne

Editorial

Principles of Management

"The great To-day and greater Future" is almost as stimulating and provocative as Henry Ford's earlier book, "My Life and Work." Both reveal a man of sturdy independence who has made a great success of his own business in his own way, and who believes that his is the only way to success in any business. Impatient and prejudiced sometimes, obviously mistaken on some occasions, Mr. Ford is always thought-provoking whether you are able to agree with him or not. His principles of management are extremely simple, he says, and may be compressed into three statements:—

1. Do the job in the most direct fashion without bothering with red tape or any of the ordinary divisions of authority.

2. Pay every man well—not less than six dollars a day, and see that he is employed all the time through forty-eight hours a week and no longer.

3. Put all the machinery in the best possible condition, keep it that way, and insist upon absolute cleanliness everywhere, in order that a man may learn to respect his tools, his surroundings, and himself.

Although not placed in quotation marks, these compressed statements of principle are copied word for word, and the book shows how they are being applied by Mr. Ford at his main and subsidiary plants. A builder of motor cars, he has felt obliged to do a great many other things because he could do them better than the people upon whom he was previously dependent, or because these others "stuck him up" or failed him at a pinch. And if to-day he owns fields and forests, and grows flax, and cuts timber, and runs a railway, it is all as a means to an end, that end being the more economic production of cars and tractors. Mr. Ford will not remain at the mercy of any man whose indirect or red-tapey methods make his work expensive. He takes hold of the service himself. Waste is as abhorrent to him as dirt, and the account of how at the various Ford plants waste is reduced to a minimum, and this minimum utilised for other purposes is a lesson in economy.

Being a business man, Mr. Ford realises that business must be carried on at a profit, but he insists that it should be actuated by the "wage motive" rather than by the profit motive. A man should not go into business to "make money," but to render service, and a big part of this service is to those associated with him in the making or marketing of useful articles. It was this consideration, he says, that put him in possession of some two hundred steamers after the World War. He did not want such a fleet, and did not expect to make much out of it, but he had the satisfaction of giving temporary employment to thousands of men in breaking up the ships, and restoring to the industrial life of the country materials which otherwise would have been wasted. Again and again he says that he gets immediate value for the high wages he pays. His men earn their money, every one of them. Not only so, but earning much they spend much, and one of the things on which they spend is Ford motor cars. Thousands of his men drive their own vehicles. In every way his big wages policy justifies itself. Treated well the men respond. They are better workers and more acceptable citizens, than they would or could be on a mere "living wage." There can be no "standard wage," says Mr. Ford. "A wage based on a standard of living is destructive, for it implies that all men are alike, and can agree on how they want to live. Fortunately all men are not alike, and fortunately only a few care to live this year the way they did last year. Any attempt to fix a 'living wage' is an insult to the intelligence of both managers and workers. We do not know what the right wage is, and perhaps we never shall know. But certainly it only clogs progress to try to fix wages without the facts. The world has never approached industry with the wage motive—from the angle of seeing how high wages may be—and until we have had some experience in that line we shall not know much about wages."

Before the above "wage motive," however, stands "service motive." "The first responsibility of business is to the public." And again—"Business does not exist to earn money for the capitalist or for the wage-earner. The narrow capitalist and the narrow trades unionist have exactly the same view of business—they differ only on who is to have the loot." It follows from this that when costs of production are reduced from any cause, the difference is not to go either to the capitalist, or management, or labour—not according to Mr. Ford. It should go to the consumer. In other words, prices should come down. Where, it may be asked, do the others come in? Mr. Ford has an answer ready. "The owners and the workers will get their reward by the increased amount of business the lower prices bring."

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Federated Hardware Merchants' Association of Australia.

At the office of Wallace Bruce & Co., Adelaide, on March 17 and 18, the annual conference was held with the following delegates and members of council in attendance:—

New South Wales.—Mr. Edward Keep.

Queensland.—Mr. J. D. Bell.

South Australia.—Mr. A. C. Crapp, Mr. A. H. Preston, Mr. Harold Law Smith, Mr. A. Somerville.

Victoria.—Mr. Ivor Evans, Mr. L. J. Anderson.

Western Australia.—Mr. T. Scarfe.

Mr. W. H. MacLennan (the secretary), and Mr. A. R. Uren were also present, and Mr. Bell, the retiring president, occupied the chair.

Before the opening of the business proceedings, Mr. A. C. Crapp, president of the Hardware Trade Association of South Australia, welcomed the visiting delegates to Adelaide, expressing appreciation of the fact that some of them had travelled long distances with the object of exchanging views and experiences by which those engaged in wholesale hardware distribution would benefit.

Apologies for absence were recorded from Mr. J. C. Davis and Mr. Leslie D. Davies, of New South Wales, and Mr. George Russell of Victoria, who were on their way to Britain; and from Mr. Alexander Mair, honorary treasurer, who had recently retired from the wholesale hardware business. Thanks were expressed to Mr. Mair for his services while connected with the association.

The following office bearers were elected for the current year:

President, Mr. A. H. Preston; Past President, Mr. J. D. Bell; Vice Presidents, Presidents of State Associations or Hardware Sectional Chairmen, Mr. J. C. Davis (N.S.W.), Mr. J. D. Bell (Queensland), Mr. A. C. Crapp (S.A.), Mr. Alfred Davis (Tas.), Mr. Ivor Evans (Vic.), and Mr. Chas. Bateman (W.A.); Hon. Treasurer Mr. M. C. Lloyd; Members of Council, Messrs. Leslie D. Davies and Edward Keep (N.S.W.), E. R. Isaacs and D. H. Tait (Queensland), H. Law Smith and A. R. Uren (S.A.), A. Davis and H. Green (Tas.), L. J. Anderson and George Russell (Vic.), and G. R. Preston and Alfred Sandover (W.A.).

During the conference all of the visiting delegates were entertained to a dinner at the South Australia Hotel, by the president and members of the South Australian Hardware Association.

Selecting Salesmen.

The methods used in picking door-to-door salesmen have become pretty well standardised as regards their qualifications. Men over 25 years of age—especially those with dependents, who are an incentive to industry—have been found to be the most successful canvassers. Only a fair education is essential—few college men make good at this class of work. Men who have had a background of retail selling experience in department, furnishing or houseware stores, and so forth, are preferred because they can be trained more quickly in the lines they have to sell.

Practically all house-to-house salesmen are paid on a commission basis, as that is considered a direct measure of their accomplishment.

Inquiry Column

TRADE INQUIRIES

During the month we have supplied answers to the inquiries indicated below. Firms with whom we have not already communicated who hold any agency connection with the firms, or handle any of the lines mentioned in this section, are invited to furnish us with particulars so that our lists may be complete.

Information Wanted.

British Patent Perforated Paper Co., Sydney.—Address in Melbourne wanted.

International Steel Wool Co., Springfield, Ohio, U.S.A.—Name and address of agent wanted.

Demco Machinery Co., 227 Castlereagh-street, Sydney.—Name and address of agent in Melbourne wanted.

Information Supplied.

Wiss Scissors. — Name and address of agent supplied.

Stuart's Cut Glass.—Name and address of agent supplied.

Salisbury Crown China.—Name and address of agents supplied.

Milking Machines. — Names and addresses of agents supplied.

Cream Separators.—Names and addresses of agents supplied.

Slick Utility Toaster.—Name and address of manufacturer supplied.

G. B. Kent & Sons Ltd., London.—Name and address of agent supplied.

"Gloria" Petrol Lamp.—Name and address of agents in Melbourne supplied.

"Wizard" Petrol Lamp.—Name and address of agents in Melbourne supplied.

Lucerne Mowers.—Names and addresses of manufacturers and agents supplied.

"Gorgon" Flycatcher.—Names and addresses of manufacturers and agents supplied.

Greenway Bros. Bilston, England (galvanised iron etc.).—Name and address of agent supplied.

Four Section Garage Door, opening flat against the wall. Name and address of manufacturers supplied.

Ernest Stevens Ltd., Cradley Heath ("Judge" brand enamelled ware).—Name and address of agents supplied.

The American Steel Wool Manufacturing Co., New York City, U.S.A., ("Ideal," "Abraizo")—Name and address of agents supplied.

An Ambiguous Order.

Regarding the order submitted through our last issue for:

1 Doz. Fowler's Spring Clips No. 27.
6 —— Bottles No. 27.

a correspondent (75/203) writes: "I have shown the problem around amongst the older hardware men, and they all agree that the dash (——) is a negative, and, of course, takes away the value of a word or number immediately above it, but the two dots (") really mean a ditto, and, therefore, a repeat of the word or number above them."

These particular salesmen, that is to say, take the order to mean one dozen clips and six only (not six dozen) bottles. The trouble is that in hasty writing the intended dots become more like a dash. It is so with some penmen at any rate.

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Personal and Social

American Trade Commissioner Services.

Mr. Julian B. Foster, assistant American Trade Commissioner in Melbourne, and lately in charge there during the temporary absence of Mr. E. G. Pauly, leaves on April 9 for Sydney. For a few months he will act as assistant to Mr. E. C. Squire, the American Trade Commissioner there.

Change of Sales Manager.

Mr. W. McAdam, formerly sales manager in Sydney of Metters Ltd., now represents his firm in Queensland, where they have purchased premises at 118-20 Mary-street, Brisbane. At Wentworth-avenue and Goulburn-street, Sydney, Mr. J. Alderton succeeds Mr. McAdam as sales manager.

Parting Presents.

Mr. E. Paulsen, who has represented Swans Ltd., Sydney, in country districts for the past twenty-six years, has been given leave of absence for six months, and is making a holiday trip to England and the Continent, travelling by the s.s. "Barrabool." Prior to leaving a presentation was made to Mr. Paulsen for the staff and country travellers as an expression of their good wishes and esteem.

Farewell Dinner and Presentation.

The employees of Hawkes Bros. Pty. Ltd., tendered a farewell dinner, at the A.B.C. Cafe, Geelong, on the evening of March 4, to Mr. A. L. David, the firm's manager, who has since left on an extended business trip abroad.

After the loyal toast had been honoured, Mr. Seager, the manager of the Melbourne office, proposed the toast of "The Firm." He spoke of the high esteem in which Hawkes Bros. were held in the business world, and expressed the opinion that the ideals of integrity and honest dealing would be worthily upheld by the present staff.

In responding, Mr. T. B. Hawkes, the managing director, said he felt proud of the firm's reputation, and could assure the employees that the directors always had their welfare at heart. He trusted that Mr. David would have a most enjovable trip abroad. Mr. J. B. Hawkes and Mr. H. B. Gibb endorsed these remarks.

Mr. G. E. Crowle, the secretary of the company, then proposed the health of the manager. He said it was the first time any manager of the firm had been sent abroad, and he was sure that the action would have far-reaching results. The staff would do their best to make the trip a success by their loyalty to the administration. On behalf of the employees he asked Mr. David to accept a travelling rug as a token of their esteem. The secretary's remarks were supported by Messrs. Seager. H. Bayley (cricket team), C. Ward and A. E. Hobbs (travellers).

Mr. David, in response, thanked the employees for the dinner, for the rug, for the kind words which had been spoken, and most of all for the evident appreciation of his work as manager. He was proud of the confidence the directors placed in him, and proud of his association with the staff. While abroad he would take the opportunity of placing wreaths on the graves of the firm's employees who made the supreme sacrifice during the war, and would convey the staff's best wishes to their old colleague, Mr. J. D. Brownlee, who was upholding Australia and the firm so ably on the other side.

During the evening musical items were rendered and the singing of "Auld Lang Syne" brought the function to a close.

Mr. J. B. Hawkes will act as manager until Mr. David's return.

Melbourne's Annual Hardware Picnic.

The annual picnic organised by the Victorian Hardware Club, was held at Sorrento, on March 5. On that occasion some 1900 people made the trip by the popular bay steamer. "Weeroona." The weather, which opened somewhat doubtfully, eventually cleared, and except for the slightest of showers at one period, the day was fine and sunny.

The Collingwood Brass Band, and Alliettis' Orchestra, provided music continuously throughout the day, at the picnic ground, as well as going and returning on the boat.

At the invitation of the committee, a number of visitors travelled with the picnickers, and at the Sorrento Hotel were entertained to luncheon. The programme of sports, which is a feature of the outing, left no time for speech-making, but the president of the club (Mr. J. G. Black) heartily welcomed the visitors, and expressed the pleasure of the committee at their presence. Among the friends of the club who sat down to luncheon were: Cr. Baron Marks, Messrs. John Boyes, William Delbridge, J. C. Harrison (J. S. Kidd & Co. Pty. Ltd), Thomas Johnson (McMillan & Co.), Marsham (Blockey, Stone & Co. Pty. Ltd), J. Reaburn (John Danks & Sons Pty. Ltd.). and James Walker. The representatives of "The Victorian Storekeeper's Journal" and "Hardware and Machinery" were also present.

Adjourning to the sports ground, a full afternoon's events were decided. There were no lack of competitors, and every race was keenly contested. The winners were: Single Ladies' Race, Miss D. Baker. Married Ladies' Race. Mrs. Lironi. Egg and Spoon Race (Ladies), Miss Pearse. Egg and Spoon Race (Gentlemen), Mr. H. Dawson. Kangaroo Race (Ladies), Miss L. Battle. Kangaroo Race (Gentlemen), Mr. J. Phillips. Needle and Thread Race, Miss Kernick and Mr. Rundle. Siamese Race, Messrs. Pemberton and Brookes. Stepping the Chain (Ladies), Mrs. Dempster. Stepping the Chain (Gentlemen), Mr. H. G. Burrows. Bowling at Wicket (Ladies), Mrs. Shiels. Bowling at Wicket (Gentlemen), Mr. E. Baldrock.

The handicapping and starting was in the capable hands of Mr. J. Schafe, and the judges were Messrs. Atkinson, Shiels and Taylor.

Trophies for the various events were presented, as usual, for competition by Melbourne hardware firms.

The large crowds distributed themselves through the Sorrento Park in families and friendly parties, the younger generation being in great form, and thoroughly enjoying the day. Arrangements for the supply of milk and hot water were, as always, most efficiently conducted. To the efforts of the secretary, Mr. J. Dempster, are largely due the success of the hardware annual outing. Quite a feature was the complete absence of any of the unhappy incidents which occasionally mar these "down the bay" excursions. This pleasing state of affairs is due to the fact that care is exercised to refuse a passage to undesirables. Hence the hardware outing continues to be one of the most popular of all the trade picnics throughout the year.

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Sundry Credits

By J. Knibb.

Of speech, I mean. Or forms of speech which I consider faulty or questionable, although in so doing I pit my poor self against many educated people. So be it. Take first the word "like," used in place of "as." With a glance upward some modern innovator says, "It looks like it would rain." Does it, indeed? "It looks as though it would rain," is the better way in which your father anticipated a welcome shower. Next consider this sentence, "We all of us murder the King's English." It may be true enough, but why murder it with these redundancies? The "of us" is quite unnecessary, and to me, I confess, quite irritating. I loathe some faulty forms. The class is now dismissed, the book closed.

Faulty Forms.

* * * *

Has it come to this? The "mother" State to sell lottery tickets! To the story of the prodigal son must now be added the sadder story of the errant mother. "Stony broke," both of 'em! Wait on! Fair play is a jewel, a jewel which cannot be lotteried. True, the "son" was confronted with an empty stomach (no joke this!) and the "mother" with an empty treasury, but there the likeness ends. The "son" only thought of himself, whereas the "mother" (bless her dear heart!) thinks of others. A ring and a robe for herself? Or shoes or silk stockings? Not at all. She is going into the lottery business in order that the public hospitals may be properly supported. Sweet charity covereth a multitude of—er—financial devices.

State Lotteries.

* * * *

The form letters sent out by certain large institutions would have made Lord Chesterfield raise his polite eyebrows. One that I recently received from my gas company made me "raise Cain" in a mild way. "Payment is hereby demanded of £——, being the amount owing by you for gas supplied to ———. Should this demand not be satisfied within 48 hours of service of this notice the supply of gas will be withdrawn and proceedings taken for the recovery of the amount due." The words quoted, it will be understood, were printed on this "Cut Off Notice," as it is called, while the blanks were filled in with the pen by some departmental clerk. This done, the precious document was committed to the post.

"Formal" Offences—

* * * *

I pay my gas bills monthly at the office of the company, but quite accidentally one account had been overlooked. Months afterwards came this peremptory demand with the threat at the end of it, the first intimation to reach me that anything was wrong. Is it any wonder that I "went for" these people, told them that only a monopoly could or would do such a thing. Their books must show that before and after this one failure I had paid my bills regularly, and in the circumstances I considered their communication offensive. As to the threat held out, they could cut me off next day, but once withdrawn the supply of gas would never be renewed, for I had electric current in the house, and would employ that agent for cooking as well as for other purposes.

—And Natural Resentment.

Last month I gave young ironmongers a lesson about the rabbet plane. I told them not to spell it "rabbit," that being a quadruped of another colour. A new turn has been given to the discussion by an Adelaide firm, who send to me through the editor a Mathieson label with the word written "rabate." Mathiesons make good planes, I know, none better, but in the realm of orthography I do not think they can claim pre-eminence. They don't know everything down in—Glasgow. I have consulted quite a number of dictionaries without finding the word "rabate" until I came to an old Nuttall, which explains it to have been a term used in falconry for the recovery of a hawk. No lexicographer applies it to a plane, whatever manufacturers may do.

Not Very Plain.

* * * *

Even citizens of the United States are to be found using the word "dishonour" in reference to America's treatment of her European debtors, Great Britain included. It is the wrong word, it seems to me, and ought not to be used in this connection. Am I to call my creditor dishonourable because he holds me to the contract between us, and accepts from me the interest I engaged to pay? Surely not. The fact that being poor I have difficulty in finding the money, and the further consideration that my creditor profited rather than otherwise by the circumstances which made me poor, have a direct bearing on the case no doubt. But they do not justify me in using ugly terms. Whatever appeal they may make to my creditor's generosity, they do not touch his honour.

The Wrong Word.

* * * *

"The Great To-day and Greater Future," designates Henry Ford's latest book, written "in collaboration with Samuel Crowther." A clumsy title, it seems to me. Not such a perfect fit, at any rate, as the piston of the Ford engine. But let that pass. A matter more serious engages my pen. On page 36 this is what I find, "I have no doubt that the workers in the Ford industries in the United States own more automobiles than are owned in the whole world outside this country." No doubt about it, Mr. Ford? I have. Directly and indirectly you claim (page 2) to give employment to 600,000 people. Say that every one of the 600,000 owns a Ford or other car, will that total exceed the number of cars in use outside of America? The statement is ludicrous. Why, Australia and New Zealand between them will soon have that number.

O, Henry!

* * * *

On his return from the Empire Conference, the Prime Minister of New Zealand (Mr. J. G. Coates) told a gathering of business men that in America you were cautioned to "Keep cool with Coolidge." For New Zealand he wondered if "Coats off with Coates" wouldn't fill the bill. Playfully suggested, no doubt, but it shows appreciation of a real need—unity in work. Australia's Prime Minister made quite as good an impression abroad as did his confrere from New Zealand, but I haven't heard of any slogan he has brought back with him. "Spats and Spiders" is alliterative, but otherwise inadmissible, for our Bruce is not the Bruce of the spider. That was an older brother of his named Robert, the Bruce of Bannockburn. "On, Stanley, On!" has historical authority, but it lacks precision. On to Canberra, or on to the rocks? From bandit to bungler, I have gone through the b's without hitting on anything fit to take the floor with Bruce.

Suitable Slogans.

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Novelties and New Samples

Self-Emptying Wheelbarrow.

According to a New Zealand paper, a Christchurch mechanic is seeking patent protection for a wheelbarrow built on ordinary lines with the exception of the floor part, which follows the principle adopted in certain larger vehicles. By the movement of a single lever the bottom opens and the contents are discharged without tipping the barrow or otherwise emptying the box.

New Rust-removing Main Cock.

Under their "Daspyl" brand John Danks & Son Pty. Ltd., of 324-30 Pitt-street, Sydney, manufacture the "Rust-removing" main cock recently made compulsory in that city by the Metropolitan Board of Water Supply and Sewerage for main-connection of water supply. Patented by Mr. W. J. Britnell, the device is controlled by the spindle of the cock. At each turn of the cock the cleansers turn concurrently, removing rust accumulated in the entrance to the main cock. By its use service pipes are enabled to flow to full capacity. These cocks come with elbow union in ¾, ¾ x 1, 1, 1 x 1¼ and 1 x 1½ in. sizes, and with straight union in ¾ and 1 in.

Collapsible Camp Stove.

A camp or picnic stove, which folds book-like into a flat package, 12½ in. wide by 10½ in. long and 1¼ in. in depth, should prove a useful appliance. The idea has been to produce a small portable stove which is inexpensive, quickly erected, and safe. It is claimed that as no sparks can escape the possibility of starting a fire in the bush is largely eliminated when using the stove.

The fuel consists of chips, leaves, bark, or any litter usually obtainable at the wayside. It heats quickly, and cools down rapidly when cooking is done. When necessary the appliance may be used as an extra seat.

Known as Bysouth's Safety Camp and Picnic Stove it is manufactured by a firm of that name at 526 Nicholson-street, North Fitzroy, Melbourne.

Two Improved Tools.

Colin Maxwell & Co., of 204 Clarence-street, Sydney, are introducing two improved tools from the works of Ewald Ahrem, Germany. A Stillson pattern pipe wrench has deep milled-cut thread at both nut and top jaw, in place of lathe turned threads affording greater gripping power. Constructed so as to allow easy adjustment to various pipe sizes while being interchangeable with the Walworth, this wrench is also noteworthy for the absence of the minutest play of the jaws. In all steel, it is listed No. 1518, and with polished wood handle No. 1517. Next is the pistol grip adjustable hack saw frame No. 1286, which is heavily nickel plated and fitted with black polished wood handle. In the production of this tool, the frame is first bent and then pressed thus ensuring an even thickness throughout, while adding to its strength and rigidity.

"Ewbank" Mangles.

New models of their well-known "Ewbank" mangles are now being offered by Entwistle & Kenyon Ltd., of Accrington, England. The "Easy-lift" is a powerful machine suitable for a family wash, while the "Lady-Help" is designed for a light wash in a small kitchen. Both are available in different numbers, and both are provided with mechanism for raising and lowering. By means of their own gears these folding mangles and tables can be operated by a frail woman.

The Accrington firm are now supplying such machines with enamelled steel table tops. This new top can be used for many household purposes, such as baking. It cannot stain like the ordinary wood table, is easily cleaned, and its edge being recessed, there is no danger of liquids running on to the floor.

Guthrie & Norton Ltd., of Sydney and Auckland (N.Z.), are the agents in this part of the world.

Kitchen and Household Ware.

Walter A. Cox Ltd., of 195 Clarence-street, Sydney are displaying a new and comprehensive sample range of enamelled kitchen ware on behalf of the Welsh Tinplate & Metal Stamping Co. Ltd., Llanelly, South Wales. Several innovations are included in this display, including highly fired and glazed teapots. Numbers 476 and 499 Queen Anne and Old English styles respectively are now made with seamless electrically welded spouts and are offered in new blue and brown shades.

Lines of heavy enamelled ware previously made with white interiors are now finely finished in pearl and the saucepans are fitted with socketed handles, and can be supplied with either retinned or black enamel rimmed lids.

Entirely new is a line of oval shaped child's bath in two sizes, 18 and 20 in. lengths, also oval pie dishes in nine sizes from 8 to 14 in.

From the same manufacturers is a new display of their well-known tinware, which embraces virtually every conceivable domestic requirement.

Cable advice has been received that a general reduction in prices has been decided upon, particulars of which will be supplied on application to them.

Household Wares in Metal and Glass.

Mr. W. Kayser, representing several well-known Continental manufacturers, has been showing, at Hardware House, Melbourne, some interesting ranges of domestic hardware and glass.

From Rudolph Fissler, of Idar, comes a good selection of aluminium, including such utensils as teapots, coffee pots and percolators, several patterns with glass lids being most attractive designs. Other domestic articles are tea kettles, stewpans from 1¾ to 14 pint capacity, and milk boilers. The latter are fitted with a special top to prevent "boiling over."

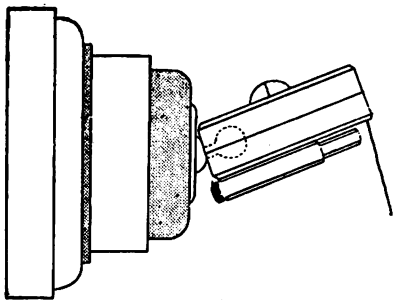
The Silesian firm of Crystallglass-Huettenwerke are manufacturers of cut glass ware and pressed glass. These specimens are of high quality and finish, a selection of coloured glass dishes and table appliances being specially worthy of notice.

An assortment of enamelled household goods is the product of the Newslaedter Emallierwerke, of Neustadt, Saxony. These also comprise kitchen and home utensils generally. The section of coloured enamel should prove interesting to buyers. Especially good are the children's sets, such as porridge plates, cups and saucers, and other suitable lines. Some forty different colours are used in this ware, the decoration being most attractive. In white enamel there are such lines as pudding basins, pie dishes and others.

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Automatic Household Switch.

From time to time several more or less effective appliances have been introduced to obviate the discomfort of leaving a warm bed to switch off the light, but perhaps the best which has so far emerged is a simple device made by the Automatic Household Switch Co., of 102 McIlwraith-street, North Carlton, Melbourne.



This "switch control" will not only turn off the light, but also light up again at will. Nothing is required except a cord and a few screw eyelets, in addition to the patent attachment. The only tool required is a screw-driver. A weight is attached to the end of the cord within reach of the hand, a pull being sufficient to switch on the light, while the mere lifting of the weight suffices to switch off. The necessary pressure to operate the switch is obtained by a spring fitting, which is clasped on to the brass knob of the control, and there would appear to be nothing to cause the apparatus to get out of order. The claim of the makers is that it will function indefinitely. It can be fixed in a few minutes, and would eliminate the exasperation of bumping into furniture in the dark.

Fine Range of Cased Goods.

At Hardware House Sample Rooms, Post Office-place, Melbourne, Mr. John Campbell has uncovered a striking range of canteens, cased goods, carvers, and E.P. ware from W. R. Humphreys & Co. Ltd., of Haddon Works, Sheffield.

It is seldom one sees such a comprehensive display of Sheffield products. In canteens alone some thirty different designs are offered, from the small type of cabinet and carrying half a dozen sets up to the elaborate canteen, highly finished and attractively fitted, packing one dozen of every requisite in table cutlery. The canteens are of various woods, and lined with different colours and shades, to harmonize with the exterior finish.

Another large section is devoted to cased carvers. Here again there are eighty different designs, covering various shades of casings and linings. Some excellent colour effects are obtained, and the carvers, like the canteen cutlery, are of the company's "Haddon" and "Radiant" stainless steel.

There is a large assortment of cake forks, afternoon tea spoons, soup spoons and fish eaters, while the fruit knives and forks, many of which are of stainless steel, are an excellent selection. A feature of the latter is that the knives have a cutting edge, and are thus capable of doing the work, while the advantage of stainless steel for use with fruit is obvious.

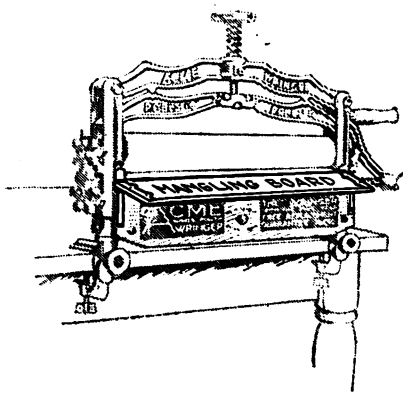
Another large selection consists of carded jam spoons, cake knives, bread forks, butter knives, child's knife, fork and spoon, and nutcrackers, a range which should be popular with buyers.

Samples also include tea pots, hot water jugs, and general electro-plated ware of high quality.

Mr. Campbell represents these manufacturers throughout Victoria, South Australia, Western Australia and Tasmania. The Belfast Ropework Co. Ltd., of Belfast (ropes and twines) is another agency of his.

New "Acme" Wringer with Mangling Attachment.

A new type of clothes wringer is now being marketed by the Acme Wringer Co., for whom J. Chaleyer & Co. Pty. Ltd., of 510-14 Collins-street, Melbourne, are representatives.



This new wringer, which is to be seen in the firm's showrooms, is fitted with 16 in. rollers. A mangling board attachment is provided, which may be instantly fixed on either side of the machine, enabling it to be used as a mangle also when required. This board has at each end a strong slotted bracket, which is quite simply placed in position or released; the act of changing from one side to the other can be accomplished in a moment, and the board fits with perfect rigidity.

The appliance is of the reversible pattern, which turns either way, and the reversible water drain is designed to keep the floor or table dry. As a wringer it is claimed that this new "Acme" is most efficient, taking a blanket without effort, and passing the article once through is all that is necessary. Patent clamps enable it to be fitted on any kind of tub or on the end of a table.

Good demand is anticipated for the latest "Acme" wringer, as it meets a need which has often been expressed by the housewife.

New Type of Barbed Wire.

Two German manufacturers are manufacturing a new type of "single strand" barbed wire, under the trade name, "Wafies," according to a report by the American Trade Commissioner at Berlin. Because one strand is omitted, this wire is considerably lighter than the two-strand type—100 metres of "Wafies" wire of 2.5 millimetres gauge weighs only 6.0 kilos as against 13.4 kilos for the same length of ordinary two-strand wire.

Another advantage is claimed in that this style wire affords less opportunity for moisture, and consequently rust, to collect. It is also claimed that this wire is easier to stretch and string than other types, that it will stand a load of about 400 lb. without breaking, and that, although the price per pound is higher than for the usual two-strand wire, that per foot is considerably lower.

One ton of single-strand barbed wire contains about 75 per cent. more mileage at a cost of from 50 to 60 per cent. more than an equivalent weight of the usual style wire. The German factories mentioned above report a good sale for this product in European markets, and ship considerable quantities abroad.—From the "News Bulletin" issued by the Commonwealth Department of Markets and Migration.

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News from Abroad

Belgian Rails in South Africa.

In the House of Assembly, at Capetown, on March 7, the Minister of Railways stated that a Belgian tender for rails, totalling £125,000, had been accepted at £5/7/10 per ton, the lowest British tender being £6/19/6. But when the rails were landed cracks and flaws were discovered to the extent of 25 per cent. in the rails already inspected.

Enamelware Cartel Formed in Central Europe.

It is reported that an agreement forming the basis for an international cartel, and providing for market allocation and price conventions, has been signed between the enamel ware industries of Germany, Czechoslovakia, Poland and Austria.

The largest national quota of the cartel is that awarded to the German industry, with Czechoslovakia in second place.

The enamel industry in Hungary is not included as a member of the new cartel, but a separate agreement governs its relationship to this group.—From the "News Bulletin," issued by the Commonwealth Department of Markets and Migration.

Stewarts & Lloyds in South Africa.

Stewarts & Lloyds Ltd., of Great Britain, with an issued capital of £5,373,679, have joined with the Union Steel Corporation (South Africa) Ltd., and the amalgamated company will not only take over the subsidiary company Stewarts & Lloyds (South Africa) Ltd., but will erect at Vereeniging a new factory for the production of steel tubes and other lines.

With headquarters in Glasgow, the British company have branches at Birmingham, Liverpool, London, Manchester, and other places. Their Australian branch is registered locally as Stewart & Lloyds (Aust.) Ltd.

Electric Furnace for Special Steel.

Edgar Allen & Co. Ltd., Sheffield, have arranged to instal an Ajax-Northrup high-frequency electric furnace for the manufacture of special steel. The furnace, which is being supplied by the Electric Furnace Co. Ltd., will be of about 3 cwt. capacity and will be driven by a 150 k.w. high-frequency motor generator. This plant is of interest as being the first high-frequency furnace for commercial steel making to be used in this country, and it is interesting to recall that Edgar Allen & Co. were the first British firm to instal an electric arc furnace for commercial steel making, their first Heroult furnace having been erected in 1909.—"The Hardware Trade Journal."

New Works in South Africa.

About a dozen large factories are being erected at the Cape, says a Reuter cablegram in "The Empire Mail." Among them are two structural iron works for Wade & Dorman (a branch of Dorman, Long & Co. Ltd., England) and A. & J. Main & Co.; a big flour mill for the South African Milling Co.; tobacco factories for the African Tobacco Co. and the United Tobacco (South) Co. Ltd., the latter to cost £64,000; the Shell Oil Co. have a big building in course of erection, also Baldwins (England), who are installing machinery to deal with their galvanised and corrugated sheets, steel sheets, black plate, etc. A cardboard box-making factory, a lagre silo, a factory for a cereal company, a soap factory, and a crayfish canning factory are also being built.

Resigns Official Position.

Major G. Fetherstone recently resigned his appointment as British Trade Commissioner in South Africa, in order to take charge of the interests there of a group of engineering firms controlled by Agricultural & General Engineers Ltd. These comprise Aveling & Porter Ltd. (Rochester), Barford & Perkins Ltd. (Peterborough), E. H. Bentall & Co. Ltd. (Heybridge), Blackstone & Co. Ltd. (Stamford), Peter Brotherhood Ltd. (Peterborough), Bull Motors Ltd. (Ipswich and Stomarket), Charles Burrell & Sons Ltd. (Thetford), Burrell's Hiring Co. Ltd. (Thetford), Clarke's Crank & Forge Co. Ltd. (Lincoln), Davey Paxman & Co. Ltd. (Colchester), Richard Garrett & Sons Ltd. (Leiston), James & Fredk. Howard Ltd. (Bedford), L. R. Knapp & Co. Ltd. (Clanfield), E. R. & F. Turner Ltd. (Ipswich).

The head offices of the company are at Aldwych House, Aldwych, London, W.C.2.

Electrical Notes from Melbourne.

(By F. M. B. 39/204.)

March saw a big display of wireless in the Exhibition Buildings. Thousands of people visited the exhibition and were amazed at the numerous types of wireless sets, loud speakers, and other fittings. Prices also ranged from a few pounds to three figures. Even the high priced sets were marked "sold." The amateurs' section showed the popularity of wireless as a hobby, while the broadcasting of 3LO was very popular with visitors.

Just how great a part electricity plays in everyday life will be set forth at the "All Electrical Exhibition" next September, arrangements for which are already well in hand. Not only will all the electrical houses be represented, but supply authorities are preparing for a great display. A model farm, and two model homes will be built, and will show every class of electrical appliance in use. Money is being spent to make this exhibition a success, and it certainly will be well worth a visit.

Already the City is being prepared for the visit of the Duke and Duchess of York, and many surprises by way of electrical illumination are promised. Present indications suggest some good things in this line.

Although not allowed by regulation, many electric irons are fitted with "bayonet adaptors," which cause no end of trouble. Some of them are covered with varnish which prevents a proper contact being made in the holder. Scraping the two contacts with a knife often remedies this.

When the two-pin plugs are used, it is well to remember that a sure contact is necessary. The pins should be kept cleaned, and if necessary, split open wider to make them a tight fit. Loose connections or contacts, cause more trouble than might be expected. The most usual "fault" occurring with an electric iron, is that of the cord "fusing." This happens in perhaps every user's home once a year or so. The part of the cord receiving most of the pull is that near the plug, and in time, this part becomes weak and the wire "fuses." Most intelligent users could repair the connection themselves, especially after one showing by an electrician. First of all switch "off" the iron, and then take the cord and repair it. The main thing to remember is to keep away from any water pipes or damp ground. Unless both wires—positive and negative—are touched, or the positive wire and earth (more especially when it is damp), not much of a shock will be experienced, probably none at all.

After thoroughly inspecting the cord, (if the iron doesn't heat), it is well, provided there is power or light in the house, to take the iron as well as the cord of an electrician. The heating element inside may have burnt out. This occurs very rarely, but to save inconvenience, it is advisable to be sure.

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Electrical Notes from New Zealand

(Specially Contributed).

Nelson reports that for February the city application for current totalled 1581; city extensions, 356; Tahuna applications, 142; lighting load applied for, 860 k.w.; heating load applied for, 1007 k.w.; power load applied for, 712 k.w.

The following loans for electrical purposes have been carried by the ratepayers: Otago Power Board, for reticulation of Lawrence-Tuapeka-Bruce area, £40,000. Heathcote County Council, for electric light extensions, Mt. Pleasant riding, £2,000. Springs-Ellesmere Power Board, for the construction of electric works, £20,000.

At a recent conference between New Plymouth Borough Council and the Taranaki Power Board, an arrangement was come to respecting the supply of power between the two authorities, by which the council and the board enter into an agreement for the reciprocal supply of electricity upon demand, both during periods of emergency and otherwise.

A new record for the Lake Coleridge hydro-electric station was registered during February, when the maximum load reached 16,290 k.w. The previous highest maximum load was recorded during July, 1926, and was 16,030 k.w. As the nominal generating capacity of the station on both occasions was 19,500 k.w., there was no question of overload. It is considered likely that the maximum load during the coming winter may reach 18,000 k.w.

Nelson City Council has appointed an engineer to carry out a thorough canvass of the district, so as to gain full information regarding the demand for current, and to secure, as far as possible, guarantees from prospective customers as to the amount of current each would take. On completion of the canvass a meeting of local bodies will be called to consider the report on the position of affairs. If a hydro scheme should be considered impracticable at present, it may still be advisable to form a power board and either take in or leave out the town of Nelson.

With a view to improving the lighting of the streets of Napier, the borough engineer and the power-house superintendent have been instructed to prepare a comprehensive report putting forward a suitable scheme.

The report of the electrical engineer showed that during January 212,585 units of electricity were supplied from Napier power-house, compared with 194,124 units for January, 1926. During the month 26 additional consumers were connected up, and 22 existing installations had additions and alterations carried out.

The general purposes and finance committee of the Tauranga Power Board, recently reported that it had taken preliminary steps in connection with a loan proposal, but a considerable amount of information was necessary before anything definite could be laid before the board.

The sub-station at Aongatete has been completed, and alterations are being made in the Bethlehem district to cope with the increasing load. A shipment of milking motors has come to hand, a number of which will be put into operation immediately. The announcement of the new tariff has resulted in increased sales of electric ranges, and many inquiries are being received.

Taumarunui Borough Council reports that the year 1926 showed very satisfactory progress in the electricity department. It is stated that many important changes were effected. The line voltage was raised from 3300 to 6600 volts, thus doubling the capacity of the line from the hydro station to the brickworks. Following this, apparatus was installed for improving the power factor, which had the effect of reducing the borough's losses by more than 50 per cent. during the day-load period. During the year there has been a steady increase of customers, bringing the number up to 680, which is a record for a district of this size.

Waitaki Power Board is showing considerable activity in the extension of electrical supply in North Otago, and a good deal of surveying and preliminary work is being carried on in outlying districts. A recent serious shortage of poles, however, compelled some curtailment of line work, and unless further supplies are available very soon, delay in proceeding with new lines will be unavoidable. Every endeavour is being made to secure supplies well ahead. Over 1200 poles are on order now, some of them being two months' overdue, and the board proposes to place a further order for 1000 poles for delivery within certain limits of time.

A report on the work of the combined advertising committee, which was set up by the Power Board's Association last year, was presented at the conference of power board secretaries held in Palmerston North during February. It was indicated that the next conference of the Power Boards' Association would probably receive a recommendation that a three years' national advertising campaign be instituted at an estimated cost of £20,000, the Public Works Department to provide two-fifths, and the Electrical Traders' Federation one-fifth.

The Minister of Public Works had been approached, and it was probable that Government approval would be given. Secretaries were asked to place the suggestion before their boards.

The business of the Auckland Power Board has increased to such an extent that the Board is now faced with the necessity for a reorganisation in methods to meet present and future requirements. It is proposed to divide the board's districts into definite areas, and to have in each area a resident officer who would be available to consumers at all times. A general inspecting officer would visit all branches at regular intervals, and would generally function as an auditor. The general manager estimated that an expenditure of approximately £17,650 would be involved for buildings, office appliances, additional transport, etc., and that the increased working cost would be £3,325.

The board approved of the principle of the scheme, and details are to be arranged at a later date.

The Springs-Ellesmere Power Board is making a strenuous effort to induce the Government to lower the rates charged for power in bulk to country supply authorities. The board points out that the sliding scale under which the authority purchasing a large amount of power obtains it at a much cheaper rate than the authority with the low maximum demand, operates very decidedly to the advantage of the cities. In view of the efforts being made by rural power supply authorities to make life in the country districts more attractive, it is claimed that more favourable treatment should be given them regarding wholesale charges. One of the board's grievances is that the Government has retained to itself some large consumers in the board's district, and that the board would be enabled, by supplying such users direct, to benefit by the reduced scale of charges.

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Interstate General News

Victorian Ironmoulders.

Since February 26, persons employed throughout Victoria as ironmoulders other than those employed in moulding bedsteads, have been working under an amended determination. For a week of forty-eight hours the minimum wage for adults range from £5/12/6 for certain leading artisans, to £4/8/6 for unspecified labourers. The award is framed on a four-fold classification. (1) Within the Metropolitan District and the City of Sandringham; (2) within the City of Ballarat and the Borough of Sebastopol; (3) within the City of Bendigo and the Boroughs of Castlemaine and Eaglehawk; and (4) all other parts of Victoria—but only in three cases is any difference of rate shown. Here No. 2 carries the lowest rate with No. 3, 1/- per week more than No. 2, No. 4 2/- per week more than No. 3, and No. 1 2/- per week more than No. 4. Metropolitan Melbourne, that is to say, entails the highest rate, and Ballarat the lowest for these particular workers. The proportion of and wages for apprentices and improvers are also laid down in the award, together with overtime rates and other conditions. Piece-work rates are permissive, provided they are so based that the average worker can make at least the minimum fixed wages for the work in question.

Trade of New Zealand.

For the year 1926, New Zealand's exports totalled £45,275,575, and imports £49,889,563. Exports show a severe drop of nearly ten millions, and imports have been reduced by £2,566,844, or nearly 5 per cent. There will have to be a further reduction in imports, as they exceeded exports by £4,442,839 for the year.

Hardware and metal goods account for £4,150,130, or 8½ per cent. of the total imports, and show a decrease of £1,487,086, or 26 per cent. Machinery totals £3,335,862, or 6⅔ per cent. of the total and is less by £23,130, or 1 per cent. Following are the principal items imported for the past three years:—

	1926. £	1925. £	1924. £
Cement	9,969	12,464	8,836
Hardware, Cutlery, etc.	1,149,738	1,138,687	1,022,924
Iron—Bar, bolt, rod	260,657	338,373	389,389
Bolts and Nuts	88,581	119,097	125,388
Galvanised Sheet	529,243	589,216	583,138
Plate and Sheet	83,956	150,787	186,783
Fencing Wire	110,018	143,032	157,294
Barbed Wire	67,864	83,613	67,134
Pig and Scrap	25,121	40,718	56,016
Pipes and Fittings	566,824	588,929	552,059
Lead	95,471	118,912	108,129
Machinery—Dairy	140,951	157,045	177,839
Agricultural	175,659	197,144	160,791
Electrical	2,082,590	2,098,299	2,056,454
Engines—Gas, Oil, etc.	237,918	292,916	200,847
Mining	22,825	30,558	34,230
Sewing	98,853	113,322	98,457
Nails	79,706	99,136	91,934
Plated Ware	100,277	110,705	108,225
Railway and Tramway Plant	265,496	531,170	448,346
Tin and Tinware	297,901	263,885	232,421
Tools	355,206	380,581	350,916
Wire Netting	66,157	106,841	124,189

The Harbour Bridge.

During the closing days of March, the work of placing in position one of the main bearings of the Sydney Harbour Bridge was commenced on the Dawes Point side of the Harbour. This work marks another important phase of the building of the bridge, since the four main bearings—two on each shore—will eventually support the main arch that will stretch across the harbour. The work now in progress consists of placing in position the base plates, six in number, of the bearing on the eastern skewback on the city side. Each of these base plates weighs 26½ tons, and the six parts will be clamped together to form one unit, which will be bolted down into the solid concrete that forms the skewback. Each bearing, when completed, will weigh 296 tons. The bolts used in clamping the bearings are so heavy that they have to be lifted into position by electric cranes.

On top of each of the main bearings will be placed the steel pins, 16 in. in diameter, which will take the thrust of the arch. On each bearing there will be a pressure, when the bridge is loaded with electric trains, motor cars and passengers, of about 12,500 tons, or a total of 50,000 tons on the four bearings. The main arch of the bridge will be 1650 ft. long, or more than twice the length of H.M.S. "Renown." The length of the main arch and of the ten approach spans will be 3770 ft. The railway approaches and the bridge itself will be 2¾ miles in length, and the roadway approaches will be two miles long. The four ornamental pylons now under construction will be 120 feet higher than the height of the General Post Office clock above Martin Place, and the top of the main arch will be 437 ft. 6 in. above the sea level. Vessels approaching the harbour from the east will sight the top of the arch when twenty miles out at sea, and before land is sighted. The weight of steel in the main arch will be 37,500 tons, and of the ten approach spans 12,500 tons. It is estimated that 3,000,000 rivets will be used in the structure.

Anzac Day (April 25th)

Victoria

Every factory, shop, and warehouse, with the following exceptions, must be closed and kept closed on Anzac Day, and every employee (except persons solely employed for the purpose of safeguarding the premises) in such factory, shop, or warehouse, must be given a whole holiday on that day. (Penalty £10):—

Exceptions.

(1) Every factory, shop, or warehouse in which any of the following trades or businesses is usually carried on:—
  (1) Printing, publishing, or distributing newspapers;
  (2) The manufacture, distribution, or supply of gas or electric light or power;
  (3) Any necessarily continuous process of manufacture;
  (4) Milk supply;
  (5) Eating-houses and restaurants;
  (6) Fish and oyster shops;
  (7) Cooked meat (other than tinned meat) shops;
  (8) Confectionery, pastry, and bread shops;
  (9) Fruit and vegetable shops; and
  (10) Booksellers and newsagents; and

(2) Every bread factory while dough only is being prepared therein.

New South Wales.

Anzac Day has been gazetted a general public holiday.

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Queensland.

Banks, Government Offices and Schools close for the day. Business premises will remain open, but opportunity will be given to returned soldiers and relatives, on application, to leave from 11 a.m. to 1.30 p.m., to attend services.

South Australia.

Same as Victoria. Hotels will close for part of the morning, but this is not compulsory.

Tasmania.

Anzac Day is to be observed as a close holiday, the same as Christmas Day and Good Friday, and every shop is compelled to close.

Western Australia.

Anzac Day is to be observed strictly as Sunday. No race meetings permitted. Hotels closed. Business exempted from closing. See list for Victoria, and, in addition, florists, tobacconists, chemists, hairdressers.

Commonwealth Tariff Decisions

The following decisions of more or less interest to the hardware trade have been made during March. By way of explanation it should be mentioned that the double number on the left of each entry represents the tariff decision number while the number to the immediate right is the tariff item, and the date following (22/7/26, and so on) the date on or from which the new decision took or takes effect:—

Machinery, Machines, etc.—

27/148 Centering Machines (Metal-working) . 174 22/7/26
Note.—The reference to Centering Machines to centre over 6 inches in diameter in "Guide," page 189, in Consolidated By-laws, page 15, and in By-law No. 21, is to be cancelled. (By-law No. 1457.)

Machinery, Machines, etc.—

27/150 Grinding and Sharpening Machines—
Drill Grinders or Sharpeners, except Twist Drill Grinding Machines. 176 (f) 22/7/26
Twist Drill Grinding Machines .. 174
Note. — The reference to Drill Grinders or Sharpeners in "Guide," page 205, is to be cancelled, and the reference to Grinding and Sharpening Machines in Consolidated By-laws, page 16, and in By-law No. 21, is to be amended by adding after the words "Grinders or Sharpeners, drill," the words "except Twist Drill Grinding Machines." (By-law No. 1458.)

27/164 **Booster**, High Pressure, for hand Grease Gun (as part of the Gun, vide T.D. 24/523.) 219 14/3/27

Machinery, Machines, etc.—

27/170 Centering Machine to centre up to 6 inches in diameter—The reference thereto in "Guide," page 189, is to be cancelled in view of T.D. 27/148. .. ..

Solder—

27/182 In the form of hollow wire, the centre of which is filled with resin. 139 (d) 14/3/27
Note.—The reference in "Guide," page 344, to Solder, having a core of resin, etc., is to be cancelled.

Iron and Steel—

27/192 Angles, 1⅛ in. x 1⅛ in. x ¼ in., having square root and toes, for use in the manufacture of Motor Car Door Hinges, under security. (By-law No. 123.) 404 10/2/27

Iron and Steel—

27/193 Bars—
No. 7 gauge (B.G.) x 2⅞ in., for use in the manufacture of Motor Car Door Hinges, under security. (By-law No. 123.) 404 10/2/27

27/207 **Deferred Duties (Deferment Notice No. 26)—**
The operation of the deferred duties under the undermentioned Tariff Items has been further postponed to the date shown respectively opposite each Item—

Item 136 (f). Iron and Steel—Hoop .. 1/10/27
This further postponement does not apply to Iron and Steel—Hoop, one-eighth of an inch in thickness, of the following widths, viz.:— 1 in., 1⅛ in., 1 3/16 in., 1¼ in., 1 5/16 in., 1⅜ in., 1 7/16 in., 1½ in., 1⅝ in., 1¾ in., 1⅞ in., and 2 in., for which see T.D. 23/748.

Item 136 (f) (2). Iron and Steel —Hoop, n.e.i. (Proposed Customs Tariff (No. 3) 1926). .. 1/10/27

Item 147. Iron and Steel, viz.:— Plates and Sheets, plain tinned. .. 1/10/27

Item 152 (a). Iron and Steel Tubes or Pipes (except riveted, cast, close-jointed or cycle tubes or pipes) not more than 3 in. internal diameter; Iron and Steel Boiler Tubes. .. 1/10/27

Item 181 (a) (2). Valves for Wireless Telegraphy and Telephony. .. 1/7/27

Item 194 (d). Chain, n.e.i., not made up into serviceable articles. .. 1/10/27
This further postponement does not apply, however, to Brass and Copper Chain (curb and trace pattern) made from wire of ½ mm. to 3 mm. in thickness, both sizes inclusive, for which see T.D. 26/564.

Item 197 (b). Cutlery, Spoons, and Forks, n.e.i.; and Knife Sharpeners. .. 1/10/27
Note.—This cancels T.D. 26/558, amends T.D. 26/825, and further amends the various references in "Guide."

Doors—

27/208 Doors and Frames for use therewith, used for attaching Oil Burners to Furnaces, imported separately. 208 (a) 28/3/27

Electrical Appliances and Materials—

27/210 Controlling Apparatus for controlling the speed of Sewing Machines by means of a fast and loose pulley, belt shifting and brake gear, and framework for attaching same to electric motors not exceeding ⅛ h.p. (By-law No. 129.) 174 2/2/27

Electrical Appliances and Materials—

27/212 Insulators, Bakelite (as a substitute for Porcelain Insulators). (Substitute Notice No. 3.) 237 (b) 21/3/27

Electrical Appliances and Materials—

27/213 Switches—
Single and double pole "on" and "off," and two and three heat rotary snap, for use in the manufacture of all kinds of electrical apparatus and appliances. (By-law No. 132.) 404 18/10/26

Electrical Appliances and Materials—

27/214 Testing Apparatus for detecting faulty insulators on high voltage transmission lines. (By-law No. 137.) 415a (2) 4/3/27

Machinery, Machines, etc.—

27/215 Armatures, imported separately, for use in Vacuum Cleaners. 179 (d) (1) (a) 28/3/27

Machinery, Machines, etc.—

27/216 Blowers, Dust, Portable, Hand, electrically operated, with Vacuum Cleaner Attachments—
Blower .. .. 176 (f)
Vacuum Cleaner attachments .. .. According to appropriate Items. 28/3/27

Machinery, Machines, etc.—

27/217 Cocoa and Confectionery Machines, viz.:—
Moulding Machines for manufacturing Sugar Whistles. (By-law No. 131.) 174 2/2/27

Preference, British—

27/223 The following is to be added to the list of raw materials embodied in notice, dated 26th September, 1925, and published in "Commonwealth of Australia" Gazette, No. 88, dated 1st October, 1925:—
Miscellaneous:—
Valves for motor car and motor cycle tubes 14/3/27

Vehicles and Parts thereof—

27/225 Motor Vehicle Parts—
Axles, imported separately, viz.:—
Other than Roller Bearing or Ball Bearing (Parts, Order No. 13). 359 (d) (4) (a) 28/3/27
Note.—This cancels the reference to Axles, imported separately, viz.:— Otherwise, in "Guide," page 391.

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Australasian Metal Markets

All prices are quoted for approved brands, duty and over charges included. For English prices, see The Month's Cablegrams, on page 104.

Sydney, March 29, 1927.

Heavy goods have had attention during the month now closing. Shortage has been pronounced in both plain and corrugated galvanised sheets, particularly plain sheets 26, 28, and 30 gauges. Corrugated sheets have sold on the regular specifications, purchasers being glad to obtain whatever was available. Steel rounds and bars are almost unprocurable and shipments reported on the water are readily accepted as soon as the named steamer is reported. Some transactions are reported in fencing wire, one parcel of barbed wire going into consumption. Tinplates have been booked for various positions of shipment at current indent quotations, the belief being expressed that Welsh manufacturers cannot offer much greater inducement, as the prices quoted are likely to advance at the end of March in consequence of the manufacturers having experienced considerable losses during the currency of the coal miners' strike, and in the resulting conditions consequent on the aftermath. The spot position does not offer much stock available, and parcels which are quoted to arrive ex named steamers show a general tendency to firmness in price. American turpentine was not in great demand, and consequently holders of stock sold interhouse parcels at lower figures than were anticipated. A firming in the American indent quotations is considered to enhance the value of spot holdings, because new season's pack will hardly arrive in Sydney before July-August next. Resin is held in full supply; manufacturers' stocks have come to hand and there is no demand at present for any quantities. Painters' materials showed a steady trade with no conspicuous features to report. Oils were inclined to be quiet because stocks were sufficient; in fact, rather heavier stock was available for sale than was necessary to cover inquiries. A few interhouse transactions were reported and resales followed at a slight advance, much below the trade distributing rate to consumers for retail trade. Jute fabrics are firmer than at last report. Spot positions for bran bags are 8/7½, an increase of 7½d; cornsacks 10/6, an increase of 3d; and woolpacks 4/6, an increase of 3d. The outlook of trade is bright, country conditions being reported sound. City trade is generally steady, and the smaller suburban storekeepers of the metropolitan area have apparently maintained steady business progress, as reports show that cash trading has been satisfactory and generally purchases have extended over a wide range of goods.

Auckland, March 31, 1927.

Hardware business, both wholesale and retail, in town and country shows little or no improvement. Some houses have been engaged in stock-taking and as the annual balance takes place with the banks at the end of the present month trading people are anticipating better conditions. The near approach of Easter suggests a brighter tone in some directions, but building and farmers inquiries are quiet. The country store-keeper is observing caution in buying, and orders are mostly for small quantities to satisfy immediate requirements. There has been a fair demand for bar iron and steel, and prices remain unchanged. Steel plates for benzine tanks have commanded much attention during the past month. Prices of corrugated iron are at present unchanged, although there is a downward tendency. Plain galvanised iron is easier at 32/6 and 34/- per cwt. Stocks of water pipes have been heavy and holders have been induced to accept lower prices for parcels than those listed, with the object of reducing stocks. There has been a fair demand for fencing wires, attention being given particularly to English brands. Prices are unchanged. Pig lead is firmer at £35 per ton, and sheet lead at £44. Linseed oil has been selling freely to meet the demand of the painting trade. Prices are inclined to firm. Turpentine is quoted at 7/6. White lead remains unchanged.

NEW ZEALAND PRICES.

	Duty.	Auckland. Mar. 31	C'church Mar. 16	Dunedin. Mar. 18	Wellington Mar. 15
IRON—					
Bar—		£	£	£	£
English ..	Free	21	24/	24/	24
Shoeing ...	,,	23	25/	23/	25
Steel ...	,,	21	20	23	18 6 to 25/
Pig	,,	8	10/6	10/6	9/- to 10/-
Plate ...	,,	21 10/	25/	24/	24/6
Hoop ...	,,	24/, 35/	33/	32/	38
Sheet, Blk.	,,				
to 20-g. ...		23 10/, 24 10/	27/6	25/6	26/6
22 & 24 g.		25 10/	29/6	30/	26/6
Galv. Cor.—	2/-				
First ...		32	34 Builders	34/	33 10/
Second ...	,,	31	31/ ,,	33/	32 10/
Local ...		32	...	...	...
Do., Plain	Free	...	...	...	...
24 & 26 g.		32/6, 34/	33/, 35/	40, 48 44	32 10/
Pipe—Galv.	Free	45%	42½% off	42½	40% off
,, Black	,,	50%	47½% off	50% off	50% off
Wire—	,,				
Galvd. ...	,,	16, 18	17/6	16/6	17/6 to 18/6
Black ...		16/6	16/6	15/6	
Barbed ...	,,	21, 23 10/	22/6 to 23/6	21	25 6 to 26/6
Nails ...	2/4/- c	20/6	22/6	21 10/ to 23	23
,, N Z.		...	...	...	23
Lead—Pig	Free	37 5/	45/	55/	40/
,, Sheet	,,	44	52/6	45/	60/
,, Shot	10/-	75/	80/	80/	75/
Tin—Ingot	Free	3/5	3/4	3/2	3/7
,, Plates	,,	35/6, 48/6	50/ I.X.	40/	37/6
Zinc—Sheet	,,	9d. lb.	9d. lb.	8½d.	8½d
Quicksilver	—	...	6/6 lb	...	...
Cement—					
Imported	1/-cwt.	...	22/6 cask	...	...
Local bag	—	5/8	6/10	6/	5/11
Slates ,,	Free	...	...	...	...
P. of Paris ...	,,	27/6	32/6	26/6	27/6
White Lead	10%a.v.				
Best ...	—	60/	59, 6 to 62/6	63/ to 65/	69/ to 70/
Second ...	—	59/	...	...	68
Blst. Powder	Free	1/8	1/9	1/7	1/8
Rope— ...	20%				
Manila, Star	—	111/	111/	116/	111/
,, O. ...	—	107/	107/	112/	107/
Flax, N.Z. ...	—	81/, 88/	88/	88/	88/
Cornsacks ...	Free				
44-in. ...	—	...	...	13/1	14/6
46-in. ...	—	...	14/9	12/11½	14/9
48-in. ...	—	15/	15/	13/6	15/
Woolpacks ...					
Full ...	Free	5/6	5/3	4/11½	5/3
Oils—					
Lins'd. raw	6d.	5/3	N.Z. 4/8 Eng. 4/11	5/	5/9
Castor ...	Free	5/-	6/	5/3	5/6
Colza ...	,,	7/9	8/	8/-	7/9
Kerosene	,,	14/9	14/9	14/9	14/3
Turpentine	,,	7/6	8/	7/6	7/6 to 8/

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Christchurch, March 16, 1927.

Hardware business in the city has been very quiet; in fact, very little business is reported in any trade at present. The visit of H.R.H. the Duke of York and the festivities in connection with his entertainment, have caused a temporary flutter and much rope and many flags have been sold. Huge crowds of sightseers have invaded the city, and the refreshment places have been crowded out, but this does not appear to have made the hardware merchant any busier. One well-known firm, on the corner of Colombo and Lichfield-streets, is having structural alterations made, and has started a sale at apparently very low prices. This will have its effect in making the other hardware firms quieter still. On the other hand, the farmers have certainly had a bumper harvest, one of the very best recorded in the annals of Canterbury. The sheep farmer also has received an excellent price for his wool at the recent sales, and when the prices paid for the above commodities come into circulation, business here should be very brisk indeed. The building trade is rather quiet. Painters are beginning to get busy again, as many people paint in the autumn before the frosts begin. White lead is being quoted at from 59/6 to 62/6, according to brand, and English raw linseed oil at 4/11 in drums, and New Zealand at 4/8 in 4 gal. tins. Galvanised piping has advanced to 42½ per cent. discount, well-pipe to 25 per cent., and steam to 37½ per cent. off list. A considerable demand has been experienced for galvanised sheet iron, and the regular sizes in 24, 26 and 28 gauges are practically sold out owing to the quantity required by local contractors undertaking big jobs for the Christchurch Drainage Board. There is still an unfortunate amount of unemployment about, but the Prime Minister (Mr. J. C. Coates), who has just returned from Europe, has arranged to absorb 2000 men in Public Works, such as making new roads and opening up fresh country for population. The local bodies also have amalgamated in order to promote a big Main Highway road scheme which the Government will subsidise from money collected from motor taxation, and this should engage all the remaining labour. With the farming community threshing and fencing will soon commence, also ploughing for the autumn sowing. Christchurch merchants are holding good stocks of plough-shares, standards and fencing wire, and expect remunerative business in the next few weeks.

Dunedin, March 18, 1927.

The citizens of Dunedin are in the throes of loyal enthusiasm over the visit of the Duke and Duchess of York. Today business has been laid aside and a whole holiday observed. For the past month business has maintained its normal progress with a prospect of better things to come. Tenders for the Town Hall have closed, and the Love Construction Co. Ltd. have secured the contract at £81,000, two years being the term allowed for completion. Values on the whole have been but slightly affected. Sheet lead has suffered a relapse in being placed at 45/- instead of 50/- formerly obtaining. Plaster of paris has also declined from 28/6 to 26/6, while white lead is ranging from 63/- to 65/-. In the oil section linseed has gone down to 5/- for raw, and castor is also lower at 5/3. Kerosene on the contrary has been advanced from 14/3 to 14/9 per case. Turpentine at 7/6 shows a reduction. Prices generally are giving satisfaction. Jute lines are somewhat slow at present although a more active movement is anticipated next month. Values ruling at present are for corn sacks 44 in. 13/1, 46 in. 12/11½, 48 in. 13/6. A number of the unemployed have found work in the widening of our coastal roads, rendering them much safer for the ever increasing motor traffic.

Wellington, March 15, 1927.

Business here is keeping fairly steady, with a fair volume of turnover. It is not quite up to what might be desired, and in some parts there is a measure of slackness, but all the same must be considered fairly satisfactory. We are still suffering from a shortage of all English iron goods as a result of the strike, and though some shipments are coming in, they are not sufficient to enable importers to build up any stocks. Prices keep very firm, and are remarkably stable. Galvanised iron is somewhat scarce, and keeps very firm. Fencing wire is going out fairly well now, but English is still very scarce. Wire nails are plentiful, with active inquiry at last rates. Bar plate and sheet iron and steel are in light supply, with very fair demand. Lead is somewhat quiet, with moderate stocks held. Iron pipes are in fair supply at previous rates. Other metals show no variation, and stocks are moderate. Cement supplies are fairly good, with steady demand. White lead is in normal supply with prices unaltered, but the English market is said to be easier. Linseed oil is fairly plentiful, and turpentine is in adequate supply. Petrol is in ample supply, with consumption still on a heavy scale. Jute goods are very quiet here at present.

Brisbane, March 30, 1927.

With the conclusion of the stupid and disastrous strike in the building trades group, and the cessation of the cyclones and the floods in the northern portion of the State, business is gradually getting back to normal. When the strike was declared off there was a general rush to get in all classes of builders' supplies. Heavy hardware is moving freely, and merchants report a fair volume of business during the last fortnight. Prices generally are stable. Stocks are reported to be good, except for plate iron in certain thicknesses, consignments of which are close at hand. Tools of all descriptions have brightened up, and prices are steady. Owing to the lull in trade most houses are overstocked, and would welcome a strong demand from the country for a few weeks. Owing to the abnormal growth of grass and weeds, there has been a record business in lawn mowers, scythes and sickles, stocks of which are consequently very light. Shelf goods have been in fair demand. Here, again, stocks are heavy, and we may expect some keen cutting, in order to make room for shipments now coming forward. Enamelled ware and aluminium lines are improving, although stocks are heavy. A fair volume of business has been reported in fencing wires and wire netting, also steel fencing posts. Merchants report some nice orders from the North and Central-West. Tin plates, 1x, 2x and 3x are practically unprocurable, and prices have firmed. Stocks are now to hand. Corrugated iron has had a good run since the termination of the strike, but the demand is now dropping back to normal, with prices unchanged and stocks in full supply. Paints and oils, in keeping with other trades, have shown a marked improvement. A reduction in the price of whitelead and oils is reported. Stocks are very good at present. Sanitary materials and fittings have eased up owing to the continuous rains and for want of contracts from the Water and Sewerage Board. Stocks are fairly right. Prices in lead sheeting and piping have eased a little. Woolpacks are quiet with prices about the same as last report and stocks ample. "Ace" brand of cement has been in strong demand since the resumption of work, but stocks are now well ahead of requirements. Prices are unchanged.

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Adelaide, April 1, 1927.

Trade during the month was fairly well maintained at this centre, although a slight easing off was noticed in heavy lines. Good shipments of Australian and English steel have been arriving during the month, with the result that merchants are well stocked. One or two fair sized parcels changed hands on the basis of £15 per ton ex wharf. Sales of galvd. corrugated sheets continue brisk, and as stocks are still rather limited inter-house purchases have been well to the fore. Two parcels of 26G. to arrive early in April were sold at £26/15/- basis, on wharf. Fencing wires and mild steel standards have been rather quiet for this period of the year, but more activity in these lines should be noted from now on. Five miles of 36 x 1½ x 18 netting were sold at £28, with steady demand for all domestic sizes. Black and galvanised tubing have been quiet with sales at prices listed. In sympathy with the lower indent quotations for turpentine and resin, spot prices have eased a little, but no great reductions will be noted until the American new season's shipments arrive. In linseed oil a sale of 20 drums imported raw was noted at 5/4. Sales of hardware shelf goods were well maintained.

Melbourne, April 1, 1927.

The past month has not seen much life in the hardware trade here. Heavy metals show rather a decline in prices, and the regular business in fencing materials has suffered owing to the dry season. Wire netting has sold throughout the month, but the quantities turned over were much smaller than is usual at this period. In one or two sizes a decline in prices has to be recorded. Parcels of two miles brought the following figures:—60 x 2 x 18, £40; 48 x 2 x 18, £30; 48 x 2 x 17, £39; 42 x 1½ x 17, £42; 42 x 1¼ x 17, £49; 3 miles of 30 x 3 x 16 sold at £24, and a few miles of 12 x 1½ x 17 went at £19 10/-. In fencing wire, again, the turnover was limited. Ten tons of No. 8 galvd. changed hands at £16 nett; and No. 8 black wire at £14/10/-, less 2½ per cent. No. 10 black was accepted in most cases at £15/15/-. The prices of barbed wire remain practically unchanged, but the quantities bought seldom exceeded 5 tons at a time. For 12 gauge barbed wire the ruling price was £22/10/-; 13 gauge, £23 10/-; and 14 gauge, £24. A line of high tension galvanised wire, some five tons, found a buyer at £22. There were quite a few dealings in iron pipes, which found a fair demand throughout the month. Good shipments of this material are arriving, the recent shortage being responsible for the steady inquiry which existed. For 5000 ft. tested galvanised pipes, 1 in., 52½ per cent. off list was the ruling quotation, while a similar parcel of steam pipe, ¾ in., was purchased at the same discount. Several 10,000 ft. lots of 1½ and 2 in. galvanised showed 55 per cent. off list. In practically all iron and steel lines the prices were lower, a drop of from 10/- to 20/- per ton being the rule. Sales of black steel sheets, 14 and 16 gauge, were concluded at £23/10/- and £24 respectively, while ten tons of steel plates, assorted, changed hands at £2 off list. For another State a good sized parcel of steel channels was shipped at £19/10/-, and ten tons of ½ in. round mild steel was sold locally at £17. In another quarter a shipment of steel joists to New Zealand, some 10 tons in all, was arranged at £17/10/-. Supplies of galvanised corrugated iron were ample for all demands. Here again prices were somewhat less than during the previous month. For quantities of 5 to 10 tons, English iron was handled at £26 ex wharf. There has not been any great inquiry for cement. Although prices have so far been steady, it is anticipated by some authorities that there may be a reduction shortly. It is reported that the quantity imported from Britain is becoming less, owing to the increasingly large production in Australia. Local brands in small parcels, 50 casks and under, at 18/- per cask (three bags to the cask). A line of 100 casks of "Ferocrese" cement was observed at 25/-. Wire nails are on offer at quite moderate figures. Sales have been made in many directions at £18 for assorted sizes, in lots of two or three tons. Sundry items noticed during the last few weeks which may be of interest to buyers were two tons caustic soda sold at £32/10/-; five tons ingot tin at £310; and 250 pairs hames, assorted, which fetched 10/- per pair. Owing to the dry weather there has been but small demand for rabbit traps. Firms in Melbourne who had purchased large stocks of traps for the season's trade find themselves still waiting for buyers. One or two handlings are advised, principally of Lane's flat spring design, which popular make sold in a few instances at 22/6 for 25 doz. lots. Iron tanks were a little easier, the occasional buyer no doubt choosing to purchase and hold on for next season's business. They were able to acquire 400 gal. tanks at £4/10/- and 200 gal. at £2/5/-. It is worth while to notice that linseed oil is inclined to fluctuate, and buyers might bear in mind the fact that many sales are being booked at prices lower than the market quotations, giving an indication of possible reductions in the near future.

Perth, March 28, 1927.

Prices ruling on this market to-day for Kelly's axes and Plumb's axes are 97/6 dozen, and for tinned hollowware 60 per cent. on list. There has been a fair amount of business doing recently in galvanised iron, the price of which is still £31/5/- ton for Orb, 5 ft. to 8 ft., x 26G, with 9 ft. £31/15/- and 10 ft. £32/5/ ton. Mild steel bars for a parcel of five tons stands at £21/2/6, while fencing wires 10 gauge fetch £20, and 12½ gauge high tensile £21 10/-. Ingot tin remains steady at 3/5 per lb., but it might be possible to get a better price for this commodity for a parcel of 5 cwt. Spring steel is £36, octagon mining £52/10/-, horseshoes 66/- cwt., and copper rivets 2/- per lb. Wood screws both iron and brass, are unchanged, but the price should be easier when screws at the reduced prices now quoted by Nettlefolds land on this market. Sheet lead stands at £59/10/-, pig lead at £44/10/-, and cotter pins at list plus 20 per cent. Linseed oil, Meggitt's in cases is being sold for 4/11 and 5/2, and the English product in drums at 6d. more per gallon. Galvd. pipe fetches list, less 45 per cent., and rabbit traps range from 18/- to 23/- dozen according to make and pattern.

Production of Steel by Direct Methods.

Considerable work has been done in the past on the production of steel by direct processes, and numerous patents relating to this problem have been granted. The United States Bureau of Mines has made a thorough investigation of the production of sponge iron and the utilisation of this material in the form of pig iron and steel. It is the purpose of an investigation being conducted at the North Central Experiment Station of the Bureau, at Minneapolis, to make a survey of all the work that has been done on direct processes, and to determine what fundamental information is needed to develop direct methods for making steel. Gaps in the present fund of information will be filled in by laboratory experiments. The Bureau of Mines is particularly interested in the use of non-coking fuel in reduction and the utilisation of low-grade ores by concentration after metallisation has taken place. Although the present supply of good grade iron ore and coking coal seems adequate for the immediate future at least, any development which would utilise a non-coking fuel in conection with the metallisation of low-grade iron ores would open up vast quantities of dormant materials, basic to the manufacture of steel.

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Australian Market Prices

N.B.—The prices given in these columns are mostly those at which wholesale merchants are prepared to supply ordinary parcels to storekeepers, or other retail dealers. In a few cases we give the quotations of manufacturers or their agents. Preference as well as general duties are shown in the "Duty" column. The first rate is that on goods from the United Kingdom, and the second is the general rate on goods from foreign countries. "F" represents free, and "F 10 %" free from the United Kingdom and 10 % from other countries.

	Duty	Sydney Mar. 29	Melbourne April 2	Adelaide April 1	Brisbane Mar. 30
Pig Iron	2/. 40/	£	£	£	£
British		...	7 5/	...	...
Swedish		...	...	...	...
Lithgow		7 10/	7 5/	...	...
Newcastle		7 10/	7 5/	8	...
Bar and Rod	44/. 120/	22 basis	English 21	24 10/	22/10 basis
Australian		...	18/6	...	...
Mild Steel	44/. 120/				
Bar		19 10/basis	20 basis	19	18
Angles		19 10/	18	19 10	19
Tees		21	18	20 10	20
Hoops	F., 10%				
Black		20 basis	19 basis	19/6	21/ basis
Galv.		32/6 basis	35	33/6	31 10/
Galv. Corr. 24g.	20/. 60/	30/]	29 10/	29 10/	
Orb 26 g		29	31	31 10/	30 5/
,,		30 10/	31		31 10/
Adams Mars		...		29	...
Phoenix Cr.		29 15/	30	29 10/	32
Galv. Plain 24g.	20/. 60/	30/]			
Queen's Hd.		31/	31	32 10/	33
Phoenix Cr.		31 5/	33	...	...
Fleur-de-lis		30 10/	...	32	33
Other		...	31 10/	...	43/
Sheet	F., 125/				
Black		27 basis	25 basis	26	26
Baldwins		B26, G34 5/ basis	26 10/	...	19
Plate	F., 120/	18 basis	15 basis	15	15 10/
Steel		19/6	21	19	21
Girder					
Fencing Wire	F., 120/				
American 8		18 5/	18 5/	..	..
,, 10		19 5/	19 5/	..	...
Austra'n 8 Bl.		15 12/6	15	15 10/	16/
,, 10 ,,		16 12/6	15 10/	16	17/
Galv. 8		17 17/6	14 10/	18 10/	18 10/
,, 10		18 17/6	15 10/	19 10/	19 10/
,, 12		20 2/6	18 10/	20 15/	20
Barbed Wire,	68/. 180/				
Amern. 12-g.		21	...	...	25 10/
,, 14-g.		25 10/	...	...	26 10/
Austn. 12-g.		24 10/	23	24	25 10/
,, 13-g.			24	25	26
,, 14-g.		25 10/	25	26 10/	26 10/
Wire Netting	F., 200/ per. ton				
36 x 1½ x 17			36 15/	38 10/	
36 x 1¼ x 18			29	37/	New
42 x 1¼ x 17		15%	49 10/	..	List
42 x 1½ x 17		to	41 10/	...	
42 x 1½ x 18		20%	34	43 6	10 to 15%
36 x 1½ x 17		off	35	...	
36 x 1½ x 18		list	28	...	Off List
36 x 2 x 18			22 10/	31/6	
36 x 2 x 19			20	25/6	
Nails—					
Horshoe	12/. 15/	2½% on list	to 1/lb.	1/ less 10%	List Price
,, Austn.		...	List	...	plus 5%
Wire	5/6. 8/				
,, Austn.	or25%,35%	28/6 basis	20/ to 22/	24/6 to 35/	30/- basis
Roofing—	5/6. 8/				
Evenden		74 6 cwt.	65/cwt., 9/6	10/	11/
Lead-head		...	...	...	44/
Block Tin	Free	302 10/	296	312/	2/8
Tin Plates, 28 x 20 -	F., 10%				
I.C. Coke	28 x 20	112's 67/6	47/6	56's 39/ 37/	27/
I.X. Coke	56s	47/6	75	...	42/
Pig Lead	Free				
Austn.		34	42	37/	38/10
Sheet Lead	10%, 20%	46/	47 to 50	50	56
Dampcourse					
2 lb.		7/- Roll	52		
3 lb.		10/6 Roll	50		
Lead Pipe—	10%, 20%				
⅜ to 2in. coils		51/	52	55	63/
Soil Pipe		54/	54	57 10/	66/
Compo. ⅜ up		56/	56	57 5/	79/
Copper—					
Ingots		...	70	97/6	10d.
Sheet	25%, 40%	1/6	1/7	1/8	1/8
Brass					
Sheet	25%, 40%	1/3	1/2 to 1/6	1/6	1/6

	Duty	Sydney Mar. 29	Melbourne April 2	Adelaide April 1	Brisbane Mar. 30
Zinc—		£	£	£	£
Sheet 9 to 18g (7 x 3 & 8 x 3)	25,% 40%	67 10/	62 10/ to 65	69/	65/ cwt.
Perforated	35%, 45%	5/	7	...	5/6
Spelter	10%, 20%	32	...	54/	...
,, Elec....		32 to 38 10/	41 to 42	...	40/
,, Brazing	25%, 40%	1/9	1/5	...	1/9
Bolts & Nuts—		⅜" ½"	⅜ ½ ⅝		
Cuphead 3"		75/, 59/	63/ 47/ 41/		
,, 4"	35%, 50%	76/, 57/	61/ 46/ 39/	...	26/3 to 73/
,, 5"		70/, 54/	56/ 41/ 37/		
,, 6"		65/, 49/	52/ 39/ 35/		
,, 6½" to 9"		61/, 47/	49/ 38/ 34/		
,, 9½" to 12"		59/, 45/	47/ 36/ 32/		
Tanks, 400-gal.	Free	6 5/	5 15/		5
,, 200-gal.		3 5/	3		3
Tubing—	F., 10%				
Black, up to 3"		55 off list	55% off	58⅓off	List 45% off
" 3½ & up	27½		65% off	35 off	.. 5% on
Galv. up to 3"		50 ,,	45% off	46⅔off	.. 10% off
" 3½ & up	27½	...	tst. List	20 off	Less 10% off
Steam, up to 3"		40 ,,	37½% off	37½off	.. 5% on
" 3½ & up	27½	...	5% off	20 off	.. 25% off
Wr'ght boil.		...	10 % on	...	.. 15% on
Explosives—	F., 5%				5/
Hall's C.C.	10%	1/-	10½d.	1/-	1/1
Curtis's		10½d	10½d.	1/0½	1/
Chilworth's		10½d.	10½d.	...	1/1
Sporting	15%, 25%	3/6, 4/6	2/9 to 4/6	3/6 to 4/11	3/6 to 5/3
Diam. S'less		10/	8/ to 8/6	8/3 to 8/6	5/
Amberite		8/6	7/ to 7/6	6/9 to 7/6	75/
Blast'g Gel.	F. 5%	74/6	74/6	74/6	79/6
Gel. Dyna.		66/	66/	66/	71/6
Gelignite		56/ to 59/6	56/ to 59/3	54/6 to 58/6	62/ to 65/
Dynamite		51/ to 57	51/ to 57/	46/6 to 51/6	...
Detonators	15%, 25%	55/	55 to 60/	60/ to 85/	58/ to 102/
Shot—Chilled	5/, 6/	68/	61	75/	90/
Australian		67/	56	...	...
Cyanide Pot.	Free	1/4	1/6	...	1/6
Quicksilver	Free	5/	5/6	6/-	6/-
Sash Weights	35%, 45%	16/	22/6	16/6	18/6
Sheep Shears	F., 10%	62/6	60/	60/	60
Cement—Impt'd	20%, 30%	25/ cask	21/6	22/6	21/ cask
Aust. (bags)		...	18/	7/4	6/6 bag
Plaster, Imp.	1/6, 2/6	37/6 K.W.	35/	47/6	50/ cask
,, Aust.		Pixie 35/-	8/	9/3	18/ bag
Slates (20 x 10)	30%, 40%				
White Lead—	8/, 10/, or				
Imported	25%, 30%	70/	75	71/6	72/
Australian		62/6	65/	61/6	66/
Zinc White	20%, 30%	...	70 to 100	...	72/. to 90/
Oils—					Colonial 56/
Linseed (raw)	9d., 1/		Drs.,		
Imported		R5/6	5/10	Drs., 5/9	5/-
Australian		C4/9 D 4/11	C., 5/-	Drs., 5/6	4/9
Colza	6d., 8d.				
Burning		...	6/-	...	
Castor—	9d., 1/				
½-cases		C 6/3	6/3	7/	7/9
China		...	8/	...	...
Cotton seed	6d., 8d.	..	8/6 to 10/	...	10/
Kero.—C.O.R	Free		13/	...	...
Laurel		13/	13/6 to 14/6	13/	13/6
Light of Age		13/	13/6 to 14/6	13/6	13/6
Pennant		13/	13/6 to 14/6	13/	13/6
Turpentine	F.,	6/3	6/3	6/-	52/- c/s
Substitutes	½d., 1d.	3/	18/ per case	...	18/- c/s
Shellac		2/6	2/9	2/5	2/9
Whiting—	6d., 9d.				
English		9/	9/	10/	£12 ton lots
Colonial		4/9	4/6	6/6	...
Resin, G grade	Free	38/6	38/	36/	37/6
Carbide—	80/, 150/				
"I X L"		32/6	25/6	29 5/	29, 7/6
Scandinavian		35/-	27/6	33 10/	33
Canadian			...	...	...
Japanese		...	...	...	...
Bluestone—	100 , 200/	...			
Macclesfield		37/	37/	...	42/
Australian		36(1 cwt c/s)	...	37/6	...
Japanese		...			
Stock. Tar, 42 g.	25%, 35%		1/5	...	
Woolpacks—	Free	...		...	...
42 x 11½		...	6/	5/9	...
54 x 11½		4/6	4/6	4/9	4/9
Cornsacks—	Free				
2¾ lbs. (Oats)		...		...	...
2¼ lbs		10/6	10/3	11/6	13/6
Branbags	Free	8/7½	8/6	8/6	9/ to 10/

Small buyers requiring credit for broken parcels must expect to pay more than prices here quoted.

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Business Register

If you correct them monthly by these pages you will have lists more up-to-date than any Directory. Some leading firms do this.

New South Wales

Firms Registered.

F. C. Garner & Co., grocers and ironmongers, East-street, Narrandera; proprietor: Francis C. Garner.

Burton & Bryant, general storekeepers, Ingleburn; proprietors: Charles M. Burton and Charles A. Bryant.

Workman's Tool Shop, tool and hardware merchants, 485 Hunter-street, Newcastle; proprietor: Calman Goldring.

Willis & Hodge, general storekeepers, Goulburn-street, Crookwell; proprietors: William H. Willis and Harold S. Hodge.

L. G. Jackson & Co., bath heater manufacturers, Lane Cove-road, St. Leonards; proprietors: Louis G. Jackson and Ernest Grant.

Noah's Ark, crockery, hardware and toy dealers, agents, etc., 39 Belford-street, Broadmeadow, Hamilton; proprietor: Harold D. Roberts.

Walbow Racquet Co., manufacturers and sellers of tennis racquets and similar goods, University and Denison-streets, Camperdown; proprietors: George A. Clapshaw and Radley Clapshaw.

Spiral (Patent) Standard Steel Co., steel rollers and manufacturers of steel fencing, Endeavour House, Macquarie-place, Sydney, and Carrington, Newcastle; proprietor: Alexander Arthur.

Company News.

S. Scott-Young Ltd. announce that the company is being wound up voluntarily. Hugh Scott-Young is the liquidator.

Harrison's Ltd. have been registered with a capital of £5000 in £1 shares. Objects: To adopt a certain agreement, and to carry on business as manufacturers of lead-headed nails and such like commodities. etc. Subscribers: Horace Harrison, William H. Rees. Edgar H. H. Bragg, Harold M. Bragg. Gerald T. Walton. Cecil W. Plummer and Stephen R. Clark. Reg. Office: Sydney.

New Zealand

Company News.

Mullan & Noy Ltd. have been registered with a capital of £4000 in £1 shares. Objects: Engineers, founders, etc., and general incidental. Subscribers: T. G. Mullan and T. D. B. Hay.

Foundries Ltd. have been registered with a capital of £1000 in £1 shares. Objects: Iron founders and incidental. Subscribers: L. R. Greenslade, F. J. W. Pope, P. H. Watts, and H. Greenslade.

Lamont Tile and Gate Co. Ltd. have been registered with a capital of £1000 in £1 shares. Objects: Deal in tiles, grates and incidental. Subscribers: T. Lamont, W. B. Lamont, J. Lamont, W. Lamont, and N. Lamont.

Ross, Gould Ltd. have been registered with a capital of £2000 in £1 shares. Objects: To deal in water-flushing patents and incidental. Subscribers: A. H. Walker, C. E. Chittenden, A. H. Walker, C. E. Chittenden, R. I. Gardner and C. Mackley.

Alfa-Laval Separator Co. (N.Z.) Ltd. have been registered with a capital of £20,000 in £1 shares. Objects: To acquire and take over from Aktiebolaget Separator, of Sweden, certain stocks of machinery and machinery parts and accessories, and to carry on business as importers, exporters, and dealers in machinery and general incidental. Subscribers: Aktiebolaget Separator, A. C. Boccard, G. I. Blake and P. E. Miller. Office: 46 Cable-street, Wellington.

Queensland

S.I.O. Brass Foundry (Sydney P. McDonald and Albert Wood), brass founders, Rainworth-road, Rosalie, announce that Sydney P. McDonald has retired from the firm.

Gibbs, Bright & Co., merchants, etc., Empire Chambers, Wharf-street, Brisbane, announce that Francis G. Murdock and Maurice A. C. Gibbs have become members of the firm.

Firms Registered.

Dickens & Co., storekeepers, Kilcoy; proprietors: Charles Dickens and Stanley J. Dickens.

W. & N. Butler, general storekeepers, Dalveen; proprietors: Wilfred Butler and Norman W. Butler

Company News.

E. E. Turnbull Ltd. have been registered with a capital of £30,000 in £1 shares. Objects: to acquire from Ernest E. Turnbull the business of a general merchant, draper, hardware and machinery merchant, etc., now carried on by him at Home Hill, and to carry on those businesses or any other business of a similar nature. Subscribers: Ernest E. Turnbull, Rose E. Turnbull, Edward B. Tippett, Howard Farmer, Charles A. Nordberg, Ruby M. I. Power, and Albert E. Dean. Reg. Office: Home Hill.

South Australia

Firms Registered.

Irwin Bros., storekeepers and agents, Ceduna; proprietors: Thomas Gregory Irwin and Vincent Sylvester Irwin.

John Coumbe & Sons, engineers, founders and implement makers, Port-road, Kilkenny; proprietor: John William Foster Coumbe.

Taylor's, hardware dealer, etc., storekeeper, supplier of petrol and oils, 188 Beach-road, Torrensville; proprietor: Roy Handley Taylor.

Company News.

Horwood, Bagshaw, Ltd. have declared a dividend on preference shares of 8 per cent. per annum.

Clarkson Ltd. have declared dividends on preference shares at the rate of 5 per cent. per annum, and on ordinary shares at the rate of 10 per cent. per annum.

Colton, Palmer & Preston Ltd. maintained a good turnover during the second half of 1926, and that notwithstanding delivery delays caused by the coal trouble in Great Britain. The half-yearly dividends declared were 5 per cent. and 7 per cent. per annum respectively on the different classes of preference shares, and 4 per cent. per annum on the ordinary shares.

Pfitzner Syndicate Ltd. have been registered with a capital of £500 in £5 shares. Objects: To purchase or otherwise acquire any interests in any patents, brevets d'invention. licenses, concessions, etc., and to carry on the business of iron founders, mechanical engineers, and manufacturers of agricultural implements and other machinery. Subscribers: Alphonsus George Day, Richard Phillip James Murdock, Walter Henry McFarlane, Andrew Monahan, and Arthur Charles Cheyne. Reg. Office: Office of W. E. Palmer, Trustee Building, Grenfell-street, Adelaide.

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Tasmania

Ira L. & A. C. Berk Ltd. have been registered with a capital of £75,000 in £1 shares. Reg. Office: Sydney.

Victoria

The Centreway Stores, general storekeepers, Napier-street, St. Arnaud, have been registered under the Firms Act; proprietresses: Angela Travaglia and Ellen Travaglia.

J. M. Anderson & Sons, coppersmiths, 296 and 298 Queen-street, Melbourne, and Sturt-street, South Melbourne, announce that George Philip Anderson has retired from the firm.

W. G. Barger & Son, agricultural implement makers, rear of 583 Spencer-street, Melbourne, announce that Sidney Lavengton Webb has retired, and that Edward Talent has become a member of the firm.

Company News.

International Harvester Co. of Australia Pty. Ltd. announce that the capital of the company has been increased from £1,000,000 to £1,500,000.

James & Croker Pty. Ltd., manufacturers and vendors of nitro-cellulose and enamel paint, oils, colours, etc., have been registered with a capital of £2500 in £1 shares. Subscribers: Henry James and John Edwin Croker. Reg. Office: 297 Malvern-road, South Yarra.

Permarite Outex Co. Pty. Ltd., manufacturers of steel equipment, office supplies, etc., have been registered with a capital of £35,000 in £1 shares. Objects: To acquire the business of Charles William Land. Subscribers: Charles William Land and Mary Sophie Land. Reg. Office: 483 Collins-street, Melbourne.

Eclipse Metal Co. Pty. Ltd., engineers, electroplaters, etc., have been registered with a capital of £3000 in £1 shares. Objects: To enter into an agreement for the purchase of the business carried on at 3 Hoddle-street. Abbotsford, under style of Eclipse Metal Co. Subscribers: Charles Prosser Williamson and Jean Constance McAuliffe.

J. H. Coles Pty. Ltd., retailers of general merchandise, importers, indentors, etc., have been registered with a capital of £10,000 in £1 shares. Objects: To acquire the business of James Henry Coles, trading as J. H. Coles, 3d., 6d. and 1/- stores, at 230 Smith-street, Collingwood. Subscribers: James Henry Coles and Harold William Coles.

The Nightingale Supply Co. Ltd., manufacturers of oils, paints, varnishes and drugs, etc., have been registered with a capital of £25,000 in £1 shares. Directors: John Bernard Moran, James Arthur Taylor, Charles Stewart Pearson, William Charles Mann and Arthur Donovan Swan. Head Office: 38-40 Mary-street, Sydney, N.S.W. Agent in Victoria: Alfred Henry Stoddart, of 185 William-street, Melbourne.

Steel Equipment Pty. Ltd. have been registered with a capital of £50,000 in £1 shares. Objects: To acquire the agency for Victoria and the Riverina, N.S.W., for steel furniture manufactured under the Sankey-Sheldon System, and to purchase the whole of any number of shares in the undertaking of E. T. Brown Pty. Ltd., of Clifton Hill, etc. Subscribers: Horace Henry Steele, Crauncey William Brown, Edward Andrew McIntosh Brown, and Robert Ritchie Todner. Reg. Office: 14-24 Alexander-parade, Clifton Hill.

Western Australia

Union Stores Ltd., Fremantle and Perth, announce that the Perth branch only has been closed.

Arthur J. Mills has commenced business as a hardware dealer at Newcastle-road, Midland Junction.

The Eagle & Globe Steel Co. Ltd. have removed to Balfour's Buildings, 711-13, Wellington-street, Perth.

Kelly & Rodoreda have commenced business as china and glassware merchants at Otley-place, off Murray-street, Perth.

Gibbs. Bright & Co., merchants and general agents, 356 Murray-street, Perth, announce that Robert Charles Reed has retired, and that Francis Garden Murdoch and Maurice Antony Crutchley Gibbs have become members of the firm. Alban George Henry (Lord Aldenham). Hon. Vicary Gibbs, Herbert Cockayne (Lord Hundson), John Arthur Gibbs, Brien Ibrican (Lord Cullen of Ashbourne), Hon. Gerald Henry Beresford Gibbs, Hon. Walter Durant Gibbs, Francis Amboor Keating, George Frederick Bell, James Edward Hayne, Alfred Ernest Bright, and Hon. Sir Alfred William Meeks are the continuing members.

Travellers

In New Zealand.

Mr. Percy A. Lyttle, of Walter A. Cox Ltd., 195 Clarence-street, Sydney, leaves for New Zealand early in April with a full range of samples on behalf of the various manufacturers, and he will visit the principal centres. His address while in the Dominion will be care of the New Zealand Express Co.

In Queensland.

Mr. J. L. Walters, of J. L. Walters Ltd., returned to Sydney on April 4, after an absence of two months during which time he visited Melbourne, Adelaide and Perth. He leaves again on May 1 for Brisbane, where, at the C.T.A. Rooms, he will be showing a full range of samples.

In South Australia.

Mr. Stanley Norton, of Guthrie & Norton Pty. Ltd., Sydney, who was showing samples from the manufacturers represented by that firm in Melbourne during March, will be opening up in Adelaide early in April.

Mr. R. B. Shiels left Melbourne on March 1 for Adelaide with complete ranges of samples from the various British manufacturers represented by Mr. Oliver M. Tibbitts. From Adelaide he goes on to Western Australia, where he expects to open about the first week in May.

To America.

Mr. B. Montgomery, general manager of Warburton Franki (Melbourne Ltd., accompanied by Mrs. Montgomery, will leave on April 7, by the S.S. "Niagara," on a business visit to America and Europe.

To and From Europe.

Mr. W. G. Watson, managing director of W. G. Watson & Co. Ltd., electrical engineers, 279 Clarence-street, Sydney, is leaving early in April, on a business visit to Great Britain and America.

Mr. Campbell Dickens, assistant manager of McKenzie & Holland (Aust.) Pty. Ltd., of Newport, Victoria, is on his way to America by the s.s. "Sierra." There he will study engineering practice and factory organisation, and after a tour of Great Britain and the Continent he will return to Australia about the end of the year.

Mr. R. H. Hankinson, of R. Hankinson Ltd., general store keepers, Narrandera, left Sydney on March 22, by the R.M.S. "Cathay," accompanied by his wife and two daughters, on a combined pleasure and business trip abroad. The party will leave the boat at Marseilles, and after visiting Switzerland, Germany and Belgium, go on to London.

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Publications Received

Metal Working Machines.

From the United Machine Tool Co. Ltd., of 14 Holborn Hall, Greys' Inn-road, London, W.C.1, we have received an eight page list of the "Hille" multiple spindle drilling, and other machines which they offer to workers in metal. Quite a number of these are illustrated in the sectional catalogue now in our hands, the frontispiece being a sixteen spindle cyclinder boring machine beautifully constructed. Issued late last year, the list is numbered 604.

Electricity in Wellington.

Covering the year ended March 31, 1926, a statement regarding the tramways and electricity departments has been issued by the Wellington (N.Z.) City Corporation. It shows a large capital expenditure, and an increasing revenue from both the tramways and electricity departments, the combined gross income for 1925-26 being £682,359. During the year 28,501,799 units of electric current were purchased from the New Zealand Government, and 4,668,406 units generated in the city power stations. For lighting, heating and power purposes a total of 15,054,022 units were sold, while a further 9,431,906 units were supplied for tramway purposes. The general manager of both services is Mr. M. Cable, M.I.E.E.

Business Queensland.

From year to year the White Mercantile Agency Ltd., of Adelaide-street, Brisbane, publish an "unrated directory of traders and maufacturers in the State of Queensland, Papua and Northern Territory."

A volume of handy size, it begins with Brisbane, whose business firms it lists and classifies alphabetically from "auctioneers" to "wholesale merchants." Following the capital come sections dealing with (1) Darling Downs and below the Range, (2) Gympie, Rockhampton and Inland, (3) Mackay and the North, (4) Papua, and (5) Northern Territory. The situation of each town is shown, and under each appear the names of the business people, with an indication of their business interests—ironmonger, storekeeper and so on.

An issue with ratings and confidential information is also published by the same firm.

Portable Phonographs.

Ford Sherington Ltd., of Kippax-street, Sydney and elsewhere, have issued a new catalogue of "Fordite" and "Globite" travelling goods which is comprehensive in the number of illustrations, descriptions and prices. It also includes fancy leatherware, handbags, footballs, ladies' and men's belts, and a new line of portable phonographs in three grades. No. 55 Phonograph is a 10 in. turntable machine fitted into a black leather case with nickel plated corners, patent "Holdfast' locking handle with detachable compartment in lid for twelve records. The lid is removable and can be used as a table. A second grade, No. 65, is a similar machine, but the case is made of timber covered with best quality black weatherproof cloth, and is also fitted with the "Holdfast" locking handle. No. 85 comprises a high grade silent double spring motor, "Fynetone" sound box with swan neck tone arm and improved amplifying horn. The case is similar to No. 65 and has a fall-down compartment in the lid for twelve records and a motor board of polished oak.

Copies of this catalogue may be obtained from the firm's head office or branches.

Australian Engineering Standards.

Two further tentative specifications are to hand from the Australian Commonwealth Engineering Standards Association, the one dealing with steam turbines for electrical plant, and the other with pressboard for electrical purposes.

Founded in 1922, the association has done much useful work in the necessitous field of standardisation, and is steadily prosecuting its inquiries, and formulating its views through a number of representative committees. The headquarters of the association are at Macleay House, 16 College-street, Sydney, the engineer-secretary being Mr. W. Rayner Hebblewhite.

The Association announces that the following tentative specifications will shortly be reviewed for issue as Australian Standard Specifications:—

No. C 17—1926 T.—Terms and Definitions Used in Connection with Telegraphs and Telephones.

No. C. 21—1926 T.—Enamelled Plain Copper Wire for Electrical Instruments and Apparatus, Insulation, Dimensions and Resistances of.

The policy of the Association is to issue each of its specifications in tentative form for a period of twelve months, during which time constructive criticism is invited. All criticism submitted to the Association is referred to the sectional committee concerned for consideration when the specification comes under review.

Manufacturers, users and others interested in the specifications in question are invited to submit suggestions for the revision of the tentative specifications to be forwarded to headquarters not later than April 30 next.

Agents and Agencies

Grimley Ltd., of "Monarch House," Broadway, Glebe, Sydney, have been appointed sole agents in Australia for the "Victor" cream separator, made by Rudelius & Boklund, Stockholm, Sweden, and available in various numbers and capacities.

Mr. Wm. J. Howatt, of 40 King-street, Sydney, has been appointed representative in Australia and New Zealand for Gebr. Weyersberg, of Ohligs-Solingen, Germany, manufacturers of cutlery and general hardware. A full range of samples is expected to arrive early in April.

Mr. D. J. Thomas, of 422 Little Collins-street, Melbourne, has been appointed representative throughout Victoria, South Australia, Western Australia and Tasmania, and Mr. C. E. Mayo, of 209a Castlereagh-street, Sydney, throughout N.S.W., and Queensland, for C. A. V. Small Tools Ltd., Portslade, Brighton, England, manufacturers of "Wade" lathes and small tools. Samples and catalogues are available at the show rooms of both representatives.

Subsequent to the retirement of Mr. S. Scott-Young, of S. Scott Young Ltd., Sydney, owing to ill-health, the Australian representation for C. S. Norcross & Sons, Bushnell, Ill., U.S.A., manufacturers of cultivators, etc., and J. & J. Siddons Ltd., West Bromwich, England, manufacturers of scales, weights and hollow-ware, has been transferred to Mr. Harold R. Richardson, Brighton House, 181 Clarence-street, Sydney, on authority from those firms. Mr. Richardson has now a representative range of sample prices and other information on behalf of these manufacturers.

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Machinery

Rule Clips.

The 6 in. flexible steel pocket rule manufactured by the L. S. Starret Co., of Athol, Mass., U.S.A., is now being fitted with a special clip to prevent loss from the pocket.

It comprises a clip fitted with a pawl, thus making it impossible to unclip the rule until downward pressure is applied on the projecting edge of the pawl.

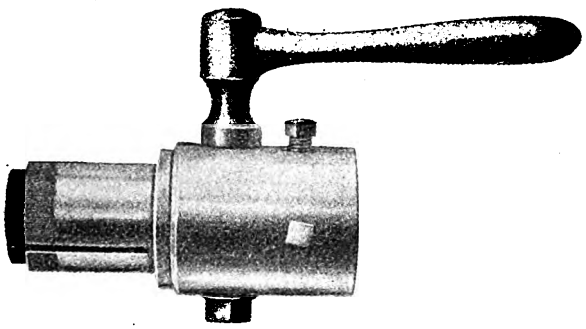
Heavy Duty Snips.

The Niagara Machinery and Tool Works, of 637 Northland-avenue, Buffalo, U.S.A., have devised an extra-heavy, curved lip, cutting snip, for cutting heavy sheet-metal used in the automobile industry.

The features claimed for this snip are a close-fitting pivot bolt and keen cutting edges that retain their sharpness. A comfortable hand-grip is also claimed.

External Screwing of Rings.

John Ackworthie Ltd., of Coleshill-street, Birmingham, England, have recently placed on the mar-



ket a tool for holding ring and shell work that requires threading on the outside diameter, and cannot be held satisfactorily by other means.

The rings are placed over the collet of the device, the levers expanding this, thereby gripping the inside of the work firmly. The collets are interchangeable and adjustable, and will take work up to 4 in. diameter.

The device fits over the barrel of an ordinary lathe, the back centre having a lever movement. In screwing rings the work is fed right through the die, the collet then being released, and the work drops off. No reverse motion of the lathe is required.

Shaft Coupling.

The Smith Power Transmission Co., of 1218 Ontario-street, Cleveland, Ohio, U.S.A., are marketing a new flexible shaft coupling, known as the "Flexoid."

This coupling consists of two cast-iron flanges coupled together with one or more flexible fabric discs in such a manner that there are no metal-to-metal bearing surfaces.

A joint of high flexibility and strength is claimed, being designed to allow a 6-degree misalignment of the shafts without chatter. It requires no lubrication. The fabric is specially treated, and is impervious to oil and water. It also insures complete electrical insulation of the sections of the shafting.

"Flexoid" couplings are made in eight sizes, with capacities from 2 to 100 h.p. at 1000 r.p.m. The couplings can be used effectively in reversing drives, and are claimed to absorb all shocks.

Uses of Antimony.

(From an Exchange).

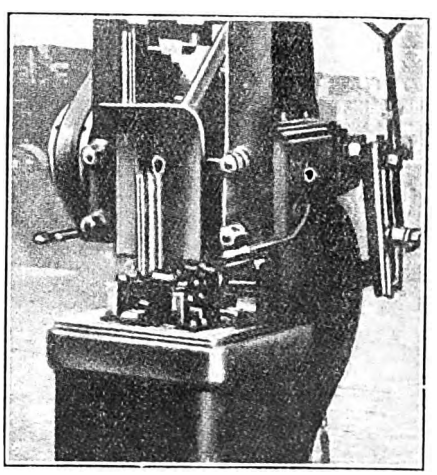
About 50 per cent. of the world's production of antimony finds its way into the United States, and in times of peace 75 per cent. of the imports are utilised in the manufacture of type metal, antifriction bearings for machinery, britannia metal, and hard metal (antimonial lead). Of the thirty odd uses to which antimony is put, virtually all can be taken care of satisfactorily by substitutes, many of which are on a stronger industrial footing than antimony and its alloys; as an example, in the hardening of lead, either calcium, barium, strontium, magnesium, or copper may be used. Alloys of barium and calcium successfully compete with antimonial alloys as bearing metals. Antimony is used as a pigment and as a mordant, but many metals can be used satisfactorily in its place. Antimony does not seem to possess any characteristics that make it irreplaceable. Broadly speaking, it is a cheap metal which can be used as a substitute for more expensive metals, and in many uses it replaces them and is not as a rule replaced by them.

Automatic Feed for Drop Hammers.

The Standard Machinery Co., of Auburn, R.I., U.S.A., have designed an automatic feed for their drop hammers. It is intended for use on small work that must be placed individually on the lower die. This prevents the necessity of the operator's hands being in the danger zone at any time.

The feed movement consists of a carrier, or pair of carriers, to move across the face of the die bebetween the magazine, or hopper, and the impression on the die. The carriers are actuated by a positive cam on the backshaft of the machine to come forward under the stack of work in the hopper, where they receive the bottom piece of work; carry that piece to the die, and deposit it in the impression; and then separate to avoid the blow of the hammer.

As the hammer rises after striking, the carrier again picks up the work piece and sweeps it off the die at the back, then coming forward to receive another piece from the stack.



A shield of heavy sheet-steel covers the greater part of the space between the guide-ways below the hammer in its raised position, so that it is practically impossible for the operator to get his hands in a dangerous position. He needs only to keep the hopper filled with the work.

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Roll Feed for Presses.

A double-rool feed for punch presses, by which the space before and behind the tools is not obstructed by shafts or other machinery, has been brought out by the Standard Machinery Co., of Auburn, R.I., U.S.A. It can be applied to any of their presses of the open-back type.

The feed is operated by a friction rachet, the movement of which is derived in the usual manner from an adjustable crank-pin in a disc, keyed to the end of the press shaft.

The ratchet wheel is keyed to the end of the transverse shaft that extends behind and below the level of the die-bed. Movement of this transverse shaft is transmitted to both pair of rolls through helical gearing.

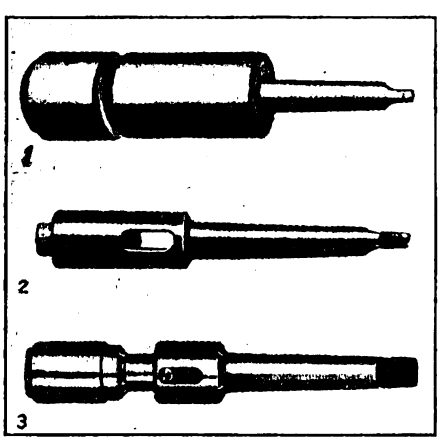
Improved Chucks and Tool Holders.

The Apex Machine Co., of Dayton, Ohio, U.S.A., are marketing several improved chucks and tool holders.

Fig. 1 illustrates a safety tool holder for use in reaming, spot-facing, counter-boring operations, and also for tapping. In general, it may be used with any tool that is likely to stick and break. The device may be used for tapping pipe threads, and by setting the friction to the desired amount, the operator can tap the holes to uniform depth, since the tool will slip when the proper depth is reached.

The close-centre chuck shown in Fig. 2 may be used for drilling holes at close centre distances. The outside diameter of the shank can be supplied as desired, ½, ⅝, ¾ or 1 in. in diam., while the shank is furnished with No. 1 or 2 Morse taper. It is made of cold rolled steel, hardened and ground. Straight shank drills can be used. They are held in the chuck by means of a split taper bushing, which is released by means of a taper key driven through a slot in the chuck.

In order to eliminate the crowding of taps, and to compensate for taps having different leads or uneven starting, the vertical-float tapping chuck shown in Fig. 3 was brought out for use on multiple-spindle tapping machines. It has a ⅜ in. vertical float, and is made in two sizes, one for standard taps up to ⅜



in. diam., and the other for taps up to ¾ in. diameter. It is furnished with friction-drive holders for bottom tapping. The lower part is a standard Apex positive drive tapping chuck, while the upper part is an adapter to fit the machine spindle. The adapter drives the clutch by means of a drive pin. The float is regulated by a tension spring. Taps are held in the clutch by Apex quick-change tap collets, both the tap and the collet being driven by the square. The unit is made of alloy steel, hardened and ground.

Silent Chain Drives.

The Link Belt Co., of 910 So. Michigan-avenue, Chicago, Ill., U.S.A., announce that stock sizes of silent chain drives are now available from distributors at ratings from ½ to 15 h.p. in almost any reduction ranging from 1 to 1 up to 7 to 1. Formerly these stock sizes were only carried as far as 10 h.p. These drives do not interfere in any way with the engineering drives furnished in sizes up to 1,000 h.p. or over.

Drill Grinding Gauge.

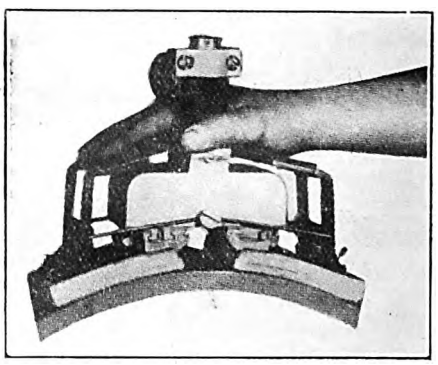
Mr. J. M. Waterston, of 427 Woodward-avenue, Detroit, Michigan, U.S.A., is manufacturing a new drill gauge, suitable for checking the grinding of drills up to 1½ in. in diameter.

The lip is graduated in sixteenths, with larger divisions at the eighths. These divisions are for comparative purposes only.

The device is of polished steel, the length being 4½ in.

Portable Rubbing Machine.

The Thompson Rubbing Machine, Inc., Binghamton, N.Y., U.S.A., have placed on the market a new tool, intended for sanding, polishing and rubbing any



surface by means of reciprocating motion. It is claimed that its flexibility makes it suitable for work on concave, convex, or flat surfaces. The reciprocating pads are easily detachable; the machine being suitable for both wet and dry rubbing.

The machine is light in weight, and when counterbalanced with its driving equipment, only the weight of the rubbing head is carried by the operator. An electric-motor furnishes the power through a flexible shaft. The machine is supplied in either ceiling or floor types.

Iron Direct From Ore.

The experimental work that has recently been carried out by the Lorain works of the United States Steel Corporation in the direct production of iron from ore without the aid of the blast furnace has attracted much interest, but it has often been erroneously stated that steel is the final product. As a matter of fact, the experiments are concerned with the production of a practically pure granular or sponge iron without the use of coke or limestone. Results so far have given an iron of 98 per cent. purity, and sufficient progress has been made to warrant expectations of a material lessening of production costs. The process is based on preheating, reducing, and cooling iron ores in rotary kilns, in successive stages, and at a temperature low enough to prevent fusion. The process consists in crushing the ores, after which they are charged into a rotary kiln heated to a definite temperature; they are then passed into a second rotary kiln, mixed with coal, and are heated to a higher temperature, and pass thence to a third rotary kiln, where they are sugjected to a sudden cooling.—"Queensland Government Mining Journal."

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Household Ironmongery and Kitchen Utensils

Buyers' Notes for Retail Dealers

Sydney

Bakewell Bros. Ltd., of Coulson-road, Erskineville, Sydney, have wire goods and tinware for all kitchen and other household requirements. To suit the preferences of storekeepers these goods are offered in both Australian and British makes of proved quality.

Brandt Bros. Ltd., of 236 Pitt-street, Sydney, stock the "Little Wonder" washer in shape an inverted end-closed funnel-resembling contrivance with equidistant perforations near the large end, and two holes nearer to the handle; the washer is placed in position in the copper previous to filling with water, and the soiled clothes are packed around it.

For easily ironing washed clothes is the "Comfort" iron, with bulblike gasoline container "aft," heated by vapour-generated gasoline gas.

Special is the "Beaby" ice-chest, whose ice compartment has automatic insect trap and removable waste pipe. Its casing is wood finished dark oak, with N.P. fittings; the sizes are six, with either galvanised or porcelain enamelled interior, and, the smallest excepted, all have two shelves.

All "Perfection" oil stoves with positively controlled flame height "Perfection" wicks, are in stock. In this brand, room heaters come in all finishes. Operating on kerosene are four and five-ring "Florence" stoves, with enamelled, enclosed burner and lever "Light" and "Out"; a "Florence" single stove carries the oil tank outside to the top, and an oven of that name has wire cooking shelves. These automatic cooking stoves are mainly in enamelled finish; "Florence" starting rings are available. The "Reliance" oil cooker is in two and three-ring style, with round-knobbed regulator.

Aluminium saucepans and household ware include such with ebonite handle; a teapot in shape a somewhat elongated globe; also the British "Swan" branded utensils in that metal. Wire goods include tea strainers, and the large "Rex" strainer. There are handled kitchen waste buckets, plain, galvanised, and others painted blue; the "Splendo" cleaner for pots, kitchen utensils, and woodware; and kitchen hand mitts. Special is genuine Swedish white enamelled ware of highest quality, such as tea and coffee pots, cups and capacious jugs.

Briscoe & Co. Ltd., of 383-85 Kent-street, Sydney, carry the customary assortment of household ironmongery. "Diamond" brand of aluminium ware freshly arrived includes jugs in two sizes with screw-fastened handle, three sizes of round-footed colanders; cut-edge saucepans with gunmetal handle; in four sizes frying pans strongly riveted to the handle, and saucepans with rolled edge. Minor articles of this metal are well in supply, and have representation in teapot stand on four legs; mug embossed "Baby," and a larger mug. Kettles are with bright-wood handle grip, and grip of ornamental blackwood with brass-knobbed ends; ladles come with pouring lip and bent-over end for suspension; and there are teapots with ebonite handle.

"Goat" brand enamelled ware is conspicuous in range; and child subjects in colours decorate white mugs with pale-blue edge. In this brand are roll-edged pudding bowls resembling crockery ones. Steven's kettles are in five sizes, and teapots in sets. The "Kooka" brand is seen on bowls, basins, and other enamelled kitchen hollow ware. All "Kande" goods, including gravy, coffee, and tea strainers, are available. British made are "Sankey" oblong enamelled bakers, shallow, and in various sizes.

Temperature-retaining thermos flasks, hot-water jugs with hinged lids and blue handle, and jugs enamelled all white except the blue edge; the original "Primus" stove; "Mac" bun tins; rubber teapot spouts; "Magpie" gravy strainer; many kinds of egg-beaters, all tinware, wire goods, and "Radius" stoves, are in stock. Shipments of enamelled and aluminium ware are about to be opened, and additional consignments are "on the water." By Goldstream Ltd., London, comes a gas-machine and requisites for making soda water and lemonade by inserting a bar of such material to dissolve in water previously gassed in the bottle.

W. T. Carmichael Ltd., of 336 Pitt-street, Sydney, now construct their "Success" gas stoves with a new patent top having loose side flaps which lift out for ease of cleaning; the top all round has bevel edge devoid of beading wherein grease lodges. The griller is a new patent type guaranteeing 40 per cent. increased efficiency owing to special side pieces on the gas bar whereby the flame is baffled, ensuring better concentration on the grilling. Another improvement is the patent cleaning oven with embossed side flanges lacking grease-collecting joints or seams; the bottom of the stove is loose and may be lifted out for cleaning. Gas connection may be effected from either end, and the gas taps are along the front. By a new system of fitting the rack, use of top screws is eliminated; the end frame curves down immediately beneath the stove top, where a screw secures it to the side bracket of the stove.

A patent coke oven for cooking bread and pastry by a new system of heating deserves notice. The first cooker of its kind is being manufactured for installation at Queanbeyan, being specially designed for country use and to effect saving in fuel cost. Its special advantage consists in three ovens separately controlled, i.e., all ovens can be hot, or two hot and one cold, yet maintaining equal and effective temperature. Its efficiency is high, and it is made in any size desired.

"Success" heaters now come with double-reversed coil, and can be fitted with either flat plain, or Bunsen burner. The coils are tested by special process to 160lb. pressure under water. Special is a line of all copper gas radiators, which in appearance resemble the electric focussing type; the mantel is specially prepared asbestos screen. By means of gas tubing the radiators may be carried from room to room.

John Danks & Co. Pty. Ltd., of 324-30 Pitt-street, Sydney, offer a well-assorted range of kitchen aluminium ware, such as heavy cast aluminium kettles with swing lid, also light kettles, both qualities in 4 and 6-pint sizes; heavy and light saucepans in sets of four; 6-tier saucepan stands; 12 and 14in. preserving pans; small, medium, and large alumin-

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ium roasters with cover to prevent shrinkage of joints and splashing of bubbling fat, and teapots in 2-pint size. To burnish aluminium ware is the "Brillo" cleaner. Included in goods of this popular metal are hotwater bottles, egg-slicer, 14, 16, and 18in. dish covers, and bread and cake tins with roll top.

Enamelled ware in good assortment embraces oval blue and round grey roasters with cover, and grey enamelled "Savoury" double boiler. Available too are gauze fly traps, tea strainers, coffee percolators, one-pint thermos flasks in various finishes, soap savers and egg whisks. For tacking around doors and windows to exclude draughts and dust is weather strip, and for hygiene in the bathroom and kitchen is the "Sanitas" wall cloth.

A fine assortment of Indian tiffin and Chinese tea tables shows each kind typically decorated; various ornamental Chinese and Indian brassware including bowls, trays, figures, and smokers' companions in types representative of the metalworkers' art of these Asian nations. Novel clock sets have the dial set in china body, which encloses the works, flanked by coloured figures, mainly male and female, in good assortment of subjects. "Perfection" oil cookers and room warmers are in supply, also "Glacier" ice chests and ice boxes in standard sizes. Fletcher Russell's "Douglas," and the "Nonpareil," "Sanspareil," "Cleveland," "Revel," and basin heaters, Australian made; "Esse" enclosed English fires; ornamental coal scuttles in copper, square, helmet, and quaintly shaped, are in stock.

Farleigh, Nettheim & Co., of 80 Clarence-street, Sydney, in tinware of every description accord prominence to the Sydney-made "Kande" brand; and there is an imported line. Galvanised iron utensils include the usual in tubs, buckets, lidded garbage tins, and round and oval washtubs. Enamelled ware is a big line in which "Judge" goods lead, supported by the excellent "Goat" brand.

Everything in the "Swan" and "Tower" brands of aluminium household ware is stocked. For rapid boiling and cooking come the Swedish-made "Optimus" No. 1 oil stove in "roarer" type, and for these "Primus" cleaning needles. Swedish and good is the "Ideal" No. 0 and No. 1 mincers. English made of retinned steel, milk-setting dishes, form a special line. Wire goods for all household purposes include strainers with gauze on wire frame and wood handle, for milk, or tea, or coffee; and wire-gauze plate covers have crockery knob. Meat safes, rigid, also collapsible, are seasonal lines. Canisters of coloured tin come in sets of from three to eight.

Fire shovels of steel with handle in one piece, and with wood handle; gauze-covered asbestos fire-lighters, gauze fly-traps, funnels of tin and enamelled funnels, housemaid's mitts of cotton with basil palms; asbestos mitts and ironing stand of asbestos; kerosene pumps with cutting end; letter boxes of galvanised iron with round door and lock, toilet paper, towel rails of glass with fittings, and rubber tea spouts on card, are available. Specials are "Fakma" copper mitts for cleaning pots; salad servers of wood and of artificial horn in white and blonde, bronze and nickelled metal trays, embossed and in shapes oblong, square and round, and butter coolers.

W. S. Friend & Co., of 113 York-street, Sydney, accord prominence to their own "Red Rule" brand of flour sifters, which are strongly constructed, and under the same brand sets of saucepans and stewpans of highest quality aluminium. In this metal also comes the "Longlife" and other brands, covering that range of cooking utensils. "Kenrick" and "Judge" brand saucepans are too well known to need more than allusion, which applies equally to the "Goat" brand of enamelled ware comprehensively stocked. Special are the brown and white "Red Rule" enamelled kettles. In saucepans and kettles is the fireproof speckled-grey enamelled "Neptune" brand.

Collapsible cups, various strainers, tea infusers, salt and pepper shakers, jelly and salad moulds, and such useful and indispensable appliances, are to be had in aluminium. Tinware and wire goods are fully in range of fresh stock. Eggbeaters in various favourite patterns and canisters in all sizes for all kitchen purposes, are variously treated in enamel or decorated tin, also in frosted silver-resembling aluminium, in sizes and number of canisters in sets to suit all purposes the housewife requires these for. "Husqvarna" mincers, "Reliance," "Universal," and the Swedish "Ideal" food choppers, are in stock. "Kande" Australian goods is a favourite line.

Household scales in types to suit various preferences are available, and there are four sizes of green-painted, gauzed flyproof meat safes in whose flat top the wire handle is countersunk. Slop buckets are in green, blue, and oak finish, and in the plain galvanised iron. There are wood spoons, rolling pins, wood boxes for kitchen cutlery, and wood trays with surrounds on three sides but open in front. Floor polishing, household cleansing, and fly-exterminating preparations are stocked under several well-known brands.

Grimley Ltd., of "Monarch House," Broadway, Glebe, Sydney, feature blue and white enamelled stewpans in 12 to 20 cm. sizes in sets of five; also Salter's clockface scales No. 46. A special offer of aluminium ware is quite comprehensive, ranging from such minor articles as "baby" mugs, spoons, funnels, through combination floating candlestick-flower vase and A B C child's plate, to extra large and deep round roaster. Special also is a full range of "Monarch" brand of enamelled ware for which the firm are sole agents; in aluminium toy ware are frying, bread, pudding, and preserving pans. "Goat" brand enamelled ware includes double milk saucepans, 4 and 6-pint, and sets of three of brown saucepans, white inside.

Boilers in all sizes from 2 to 4 gallons carry the "Pearl" (Judge) brand. Pie dishes are in sizes from 18 to 36 cm. "Bushbury" ware white enamelled pudding basins are 12 to 16 cm. Wash basins, all white with blue edge, are in usual sizes, and British-made cash bowls, white with blue line, are in similar range, and "Old English" rolled-edge pudding bowls are in "Bushby" ware. Ewers 15, 17, and 20 cm. carry the "Goat" brand; C. Collins' stewpans are in sets of five, and white mugs with dark blue edge are decorated with coloured child subjects —all these enumerated are enamelled ware.

Household gloves have white mitten top and blue band. In the "Victor" brand are lamp burners E, A, and B, and Dietz "Victor" burners; also lampwicks E, A, and B. In 1½ and 3-doz. cartons come small and large "Mendrite." Special is the German "Boye" pattern fruit jar wrench, and the "Boye" patent nutmeg grater with square box wherein the nut slides, and its grated portion falls into the receiver at the bottom; and a triplicate combination nutmeg grater is available. A "Boye" tin-opener of tempered steel has safety point set horizontally, ensuring non-slipping. With wire or wood handle are coffee and tea strainers in various sizes.

Hannam's Ltd., of 134 Castlereagh-street, Sydney, feature the "Waku" electric cleaner for which they hold an Australian agency. Made of aluminium, the apparatus is of squat-tubular bucket shape to take the sweepings. Effectively housed and exceptionally strong and heavy of construction, the motor whose case terminates in a nickel-plated handgrip for carrying, sits on the top. The cleaner is attachable to the usual electric light fittings, and is complete with three yards of nickel-plated "vertebrae" tubing and five different attachments, in-

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cluding brushes long and short. Around one side of the bucket top, integral therewith, a pipe curves for connection when required, with the flexible tubing for blowing away dust in otherwise inaccessible places. The pneumatic suction is very powerful.

All the widely-known water heaters for bath, domestic, commercial, and hospital purposes, are made continually to stock. New and special is a chip shower heater, handsome and of excellent service, providing from a handful of chips a thorough sluice-down.

Hill, Magill, Ltd., of 131-33 York-street, Sydney, have the "Isovac" thermos flask in green finish and with nickel cap and cup; its refill for 1, 1½, and 2-pint sizes is guaranteed for 12 months. "Kande" goods, locally manufactured, are in full range and superior finish. On card in dozen lots are Dunlop rubber spouts for maimed teapot spouts. "Westclox" are in comprehensive assortment of useful timepieces and sleep interrupters. For coal-gas lamps, and for lamps fed with benzine air-gas, are all requisite silk mantles.

Buckets and tubs of galvanised iron in the orthodox shapes, are available. Special is the "S.O.S." disc-shaped cleaner coming six in yellow carton. "Aeroxon" is a new pull-out in tube type of honey fly-catcher, packed 100 in an attractive display box. Patty pans of paper are in plain and in assorted patterns in packets. "Goat" brand enamel ware of well-known quality is fully in range, and enamelled bowls and such ware are of cheap and good German make. Tinware and wire goods are in complete range for all household uses, and aluminium ware includes "Longlife" stewpans five and seven in a set, maslin kettles and preserving pans, all with girdure edge.

Sparklet syphons are in two sizes, and for these all fittings are available. Both kinds of meatsafes are available, and there are the "Reschaud" and "Ideal" spirit stoves, the latter with square cooking stand nicely ornamented and finished blue. The "Optimus" stove No. 1; chain, "Mystic Mitt," and steel-ball saucepan cleaners, are available. Plain doormats have just been added to stock. There are Miller lamps and "Victor" burners; the "Dover," and "Ladd" wheel type, also spiral, spoon-shape, and various other kinds of egg-beaters; wire clotheslines, and enamelled jugs in colours with child subjects in silhouette. Again available is a milk-strainer with three loose gauze strainers of different-meshed gauze.

S. Hoffnung & Co. Ltd., of 163 Pitt-street, Sydney, in time-tested favourite hand-manipulated carpet sweepers, stock "Ewbank," "Success," "Gold Medal," "Grand Rapids," "Princess," and "Standard," all of firmly established reputation. New, for scouring and polishing aluminium ware, is the "Rid" scouring wool and soap one dozen cartons in display card picturing kitchen interior and "Rid" carton contents in their natural colour, spilled. Special is the "Shaco" meat safe fitted wtih dome top, full-bodied, and effectively perforated, making, together with a superior door fastening, a thoroughly fly-proof safe. Under the firm's own brand, "Protector," are safes in several sizes, galvanised or otherwise finished. Coir door mats, always seasonal, are available.

A handy new line is a bread and bacon cutter in four sizes; the circular knife with adjustable half-round hand guard, sits in thick plank of polished red wood. A similar, but wider plank, is with massive nickel-plated hinges screwed to the half of the base mentioned, holds the food to be sliced. Inset abreast of the knife is a single ebony roller to pass onward the piece that is being sliced.

New also is the "Winner" hand sewing-machine in handsome case. Special is a wringer-mangle which, by means of its centre screw, can be detached and used for mangling; the "Eureka" is an improved clothes wringer with black-japanned springs, and the "Jewel" wringer carries a one-year guarantee; the "Universal" and "Metropolitan" wood-framed wringers are in stock. Seasonal yet is the "Protector" branded butter cooler, whose round dish is suitably set for water chilling. Tinware of all kinds includes conical strainers with black wood handle. Dish covers in suitable sizes are of copper and galvanised gauze. Noteworthy are the "Kande," "Settler," and "Star" marked flour sifters. Food choppers carry the brands "Universal," Bollinder's, and "Enterprise," while the "Beatrice" all-metal orange cutter has a crank handle.

Holdsworth, Macpherson & Co., of 252 George-street, Sydney, feature the new "Star" tin-opener, which also lifts every shape of can from boiling water without touch of fingers, and opens the hot tin without danger of injury. It is two-handled, and a slight compression on these grips the can for lifting as stated, then, by turning the horizotal key on the top as when winding a clock, the opener cuts the top cleanly off the tin; in operation the tin turns, not the opener, and its contents can be taken out intact.

New, too, is the "White Mountain" apple-parer, corer and slicer, of few constructional parts. Clamped to a table edge, the apple is gripped firmly while undergoing operation by crank-handle action. Its dimensions are 21 x 10 x 11in., and its weight 20lb.

In strong cardboard carton is the "Blow" British-made household butter churn in four sizes, whose gears are die cast, the beaters are either the two-winged heavily tinned and easily cleaned, or the four-winged hardwood pattern; the metal screw covers are rustless tinplate, and the square jar is finest quality white flint glass. By the United Royalties Corporation, 133 Broadway, New York, are "Ladd" egg-beaters, and Taplin's "Perfection" egg-beater is also available.

The Swedish wickless "Radius" oil stove is there, and "Husqvarna" rasher and bread slicers are in two sizes. The "Orion" brass lamp, whose bold square handle at the outer top corner is coiled into hanging loop, can be used for hand, standing, or wall lamp, and comes in carton. New is the "Settler" flour sifter with crank handle. For kitchen use, set in screw wall plate three arms or bars, are jointed, permitting being swung into any position for hanging towels or dish cloths. In three sizes is the "Universal" chopper, which handles vegetables and meat, and the "Enterprise" meat chopper. With T screw are tongue-presses in 6 and 7 in. sizes. Box irons carry the brands "Royal," "Comfort," and "Imperial."

John Keep & Sons Ltd., of 104-08 Sussex-street, Sydney, have replenished their customary varied range of utensils for the kitchen and appliances for the household. Carpet sweepers carry the "Standard," "Universal," and "Grand Rapids" brands, each possessing points of excellence and still competing successfully with high-priced noisy electric cleaners.

In cardboard container are six "Gold Coin" brand thermometers guaranteed in Fahrenheit readings, and variously coloured as to finish. There are wire-mesh encased Seltzogenes and Sparklet bottles, and thermos flasks in various sizes include an all-nickel finish, and the "Universal" horizontally corrugated. The brand "Kooka" is to the fore in enamel and aluminium hollow ware, including aluminium buckets. Tinware and wire goods are in very complete assortment. All "Goat" brand enamelled ware and in aluminium, the brands of ware usually stocked, are still in prominence.

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The Swedish "Radius" No. 1 oil cooking stove; Dietz lanterns, and the "Pixie" brass night lamp which burns paraffin, are available. Handy for kitchen cookery are sets of aluminium pie-dishes and moulds. Cotton kitchen gloves with brass palms to protect the user's hands, are there, and also sets of salad servers of wood. Breadboards, octagonal or round, are in 10 or 12 in. sizes. With steel-tempered cutter, the "Vaughan" tin-opener cuts like a knife. To prolong the usefulness of handleless cups are slip-on handle clips. "Westclox" are in good range. Spice and other kitchen cannisters in sets are in customary assortment.

The K. F. B. Foundry Ltd., of 310 Pitt-street, Sydney, feature two new productions. The "Superb" is a single oven stove 21 in. deep, 47 in. wide overall, 37 in. to the top of the hot plate, and to the wall plate inclusive its full height is 58 in. Its oven measures 16 in. wide by 15 in. deep and 18 in. high, and is porcelain enamelled inside and out; the pot tray is similarly treated, and other parts are nickel-plated on polished facings. Extras are in the form of bake dish, pilot light and porcelain enamelled floor tray. The unique width of the hot plate utilizes the waste heat of the oven, which is of a size to take the largest dishes required for home cooking. The "Super Ideal" is smaller, being 36 in. overall by 24½ in. wide and 19 in. deep, and its oven is 18 in. high by 12 in. wide and 12½ in. deep; it carries various extras.

The "Super Kitchener" is about two inches larger in the various dimensions, and is a single oven stove, too, coming only in the special finish of enamel-front door, side panels and crown plate, and whose top and door are polished. Extras for this stove are extra burner, pilot light, plate rack and wall plate, nickel-plating stove, floor tray and bake dish. Specials for "K.F.B." packed gas coppers are guaranteed rust-free. For diffusing heat in the cold weather pending, are "Sunbeam" radiators of oxidized copper, and nickel-plated finish, standing on round base. Water heaters for the bath or other purposes, are of several gas-burning kinds, and a cheap heater for gasless localities.

Metters Ltd., of Wentworth-avenue and Goulburn-street, Sydney, introduce the No. 1 "Early Kooka," having warming cabinet and splash back, as desired. Coming in two finishes, it is a handsome stove with all modern improvements.

The new "Herald" stove for wood or coal is fitted with tinned copper side boiler of some three gallons capacity, or with copper block boiler suitable for hot water service. In two sizes, this stove suits a moderate home. New also and in detail similar to the stove mentioned, but with high legs and sheet iron conveniently under the tray, is the elevated "Herald"; both stoves are complete with eight feet of flue pipe, flue brush, rakes, poker and lifter.

New in gas stoves are the Nos. 22 and 23 "Early Kooka," both fitted with "Efficiency" boiling burners for reduction of gas consumption. These come in first, show, and all nickel-plated finish, and particularly attractive all-white porcelain enamel finish. Gas coppers may be had with porcelain enamelled top impervious to water, which doesn't stain clothes, and is easily kept clean. With similar finish on its sheet steel top comes the No. 0 improved chip heater, made by quantity production machinery. Its casings are of 24-gauge black sheet steel double seamed, and after completion is so thoroughly galvanised that the galvanising does not peel from the joints.

More particularly for use in the country is the No. 2 pattern "Alpha" porcelain enamelled bath, whose sheet iron panel surround imitates 6 by 3 in. tiles; the bath is fitted with 6 by 3 in. nickel-plated brass ventilators.

Aluminium and enamelled hollow ware for all kitchen purposes is steadily manufactured to stock under the "Kooka" brand, wherein certain new lines are shown.

The Quickways (Australia) Ltd., of 257a George-street, Sydney introduce the British-made steel and asbestos lined "Quickfri" cooking pan and "Quickways" kettle of hard and pure aluminium. The pan bowl being semi-circular in shape, an even, intensive temperatures is obtained, assuring perfect and economical cooking. The cooking medium for preference is fat, permitting cooking different foods together, and yet each food retains its own characteristic flavour without imparting it to the other foods, even when these are in contact. Heat is generated by all kinds of fuel available, effecting saving in the gas bill, for instance, cooking as it does a four-course meal in a few minutes.

The "Quickfri" pan, complete with lid and cooking bucket (a "scoopnet" wherein the food is placed and kept while being cooked), comes in three sizes according to the number of persons to be cooked for, and a larger, with stand and burner, for commercial cooking; also the "Chelsea" pan for shallow cooking. A kettle, lined as the pan, comes in four and six-pint sizes; there is a safety stand for use while cooking over a single gas ring; a mat in two sizes whereon the pan is placed to complete cooking without fire after the gas is turned off; a fat-strainer, which fits either of the pans; double-tinned "Ideal" slice for serving the food, and a pot masher for mixing, whisking, and otherwise treating food—all these, under the name of "Quickways," complete the cooking outfit.

Smith, Copeland & Co. Ltd., of 33-37 Regent-street, Sydney, specialise in "Aberdeen" odourless waterbags, made full size of canvas, specially manufactured to order. The "Aberdeen" handbags in 10, 12, 14 and 15, and the 16 and 18 in. dray bags, are now improved in shape, being made from a single piece of cloth, eliminating leaky side seams. Verandah water bags of best flax canvas, 8, 10 and 12 in., and the 10 and 12 in. filter bags, have faucet, lid and hanging strap. Verandah or teamster's buckets are useful articles, made of best flax canvas in 8, 10 and 12 in. sizes.

Special is the "Aberdeen" filter and butter freezer, which, as its description implies, filters water and keeps it cool, and keeps butter, jellies, and other foods firm and sound in hot weather. The receptacle for butter is galvanised, and the bag is of extra special pure flax canvas; these are packed one half or one dozen in a crate. The ordinary verandah butter cooler is in 10 and 12 in., fully fitted, which applies to the square "Victor" and circular "Ardice" butter coolers, whereof the latter is the most improved and newest style.

Vacuum flasks, durable and well finished, are in the usual numbers. Special are the original Swedish "Primus" wickless paraffin stoves, whereof No. 100L, together with round wind shield, spirit can, cleaning needles, spanner and printed directions, comes in a metal box. The Nos. 1 and 5 also are with wind shield, and No. 51 is collapsible; all are of brass. Storekeepers may have their own advertisements placed free on a useful kettle and pot-holder of felt-lined heavy basil, when ordering a gross or more. Hurricane lanterns, with standard globes fit, come a dozen in a box. The lantern is of best tinned sheet steel; the oil front has the bottom rolled on and is perfectly tight, and the upper part of the fount is welded to the lantern.

Swans Ltd., of 304 Pitt-street, Sydney, continually replenish their stock of substantial appliances for equipping modern homes in latest styles for the bathroom, laundry, kitchen and elsewhere. Basins

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porcelain enamelled, are in all the styles now in favour, including pedestal types and fittings for all. Porcelain enamelled baths are in all modern styles with roll, and flanged, also for building in, in all standard sizes and in two qualities, augmented by a 5 ft. 6 in. concrete bath. In galvanised iron are plain beaded in 24 and 26 gauge; the "P. & P." and "Excelsior" in three sizes, and a 5 ft. 6 in. enamelled bath. Large size white earthenware bathroom mirrors are round, oval, and an oblong with shelf. Heaters gas-operated, are the "Swan" contact; the same brand non-contact; the "Sanspareil," "Instanta," and "Nonpareil" in that order of value. Chip heaters are the "Swan," "Easy Clean," and the "Cleveland,"of galvanised iron or copper, with and without shower. Bathroom fittings appropriate to every style of home, expensive or otherwise, include all the goods regularly stocked by the firm.

Melbourne

Brandt Bros. Pty. Ltd., of 338 Elizabeth-street, Melbourne, are widely known as suppliers of lighting and heating appliances of all kinds. Of heating units one of the best known stoves for all purposes is the Primus, which they display in every pattern.

A new design of this make is known as the Primus Auto-Stove. Fitted in a strong tin box, attractively decorated, it is intended as a portable device, for motorists and picnic parties. The box serves also as a support for the cooking utensils. The top and front of the box are hinged to fold back and down, so there is no need to remove the stove when in use. The Auto Stove burns auto-fuel, benzine, benzcline, and similar spirits.

Another little Primus of the same type is also boxed, and burns without pumping. When the heat is applied, sufficient air pressure is generated to force the gas into the burner. This is also supplied in a box, takes very little space, and is perfectly reliable and efficient.

Many different stoves are stocked by the firm, each having its own special features, a reliable type being supplied for either kerosene, acetylene gas, petrol, or electricity. Prominent amongst these is the "Perfection" oil stove, which has been improved from time to time until this class of cooker will serve a household most efficiently.

A special petrol table lamp, the "Nu-lite," is supplied by the firm. This meets the demand in the country for a ligh power light at a reasonable cost. The "Nu-lite" is simple in use, and perfectly safe, and may be had in stand, hanging, or wall pattern.

The display of kerosene lamps is most complete. From the tiny night light, or hand lamp, to the large Miller type, every possible design and size is offered. The "Pixie" night lamp is weighted at the base so as to obviate danger of overturning. It is impossible to capsize, as it comes instantly back to perpendicular.

In addition to electric irons, a good line for the country user is the "Comfort" petrol iron. It is double-ended, has a benzine capacity of ¾ pint, and is claimed to work for five hours without refilling. The parts are easily replaced in the case of breakage. The flame is under complete control, and gives an intense heat.

A selection of electric apparatus includes grillers, radiators, hot plates, and stoves. An electric jug is now available, made by Hecla Electrics Pty. Ltd. know as the "Boilo." This is of very strong white earthenware, and fitted with a lid. It is a separate electric unit, with an open element, ensuring rapid heating.

A shipment of hurricane lanterns just opened covers every need, and includes the popular Dietz and other good makes.

The glassware department is necessarily a large one, the firm making a point of carrying every lamp chimney in use. Any size or style of burner can be fitted from stock. In electric glass again the supplies are comprehensive, and embrace globes for indirect or semi-indirect lighting, as well as enclosed units.

Mention should be made of the old familiar type of kerosene stove, a full supply of which has lately arrived. These cover such patterns as the "Beatrice," made by John Harper & Co. Ltd., Willenhall, England.

Briscoe & Co. Ltd., of 391 Little Collins-street, Melbourne, have very complete supplies of domestic hardware and household utensils. The choice in this department has greatly extended during the past few years. The advent of aluminium has practically revolutionised the taste of the public, and a number of good makes are on the market, suited to every pocket. Stocks of various English, American and Continental goods in this metal are carried. The "Diamond" brand is one which finds favour with many buyers. Saucepans, kettles, stewpans, and similar kitchen supplies are in either the ordinary or super quality made by this concern. Reliable Australian aluminium is also obtainable, the local manufacturers having progressed in a most creditable way in the production of this ware. A new line in the Australian A.S.M. brand is a special housewife's cutlet pan, which finds ready sale.

In the enamelled good section prominence must be given to the various products of Ernest Stevens Ltd., Cradley Heath, England. Hollowware of every description in the "Judge" brand might be safely recommended. If one line more than another could be selected for special emphasis it would be the teapots by these makers. Made in every useful pattern, whether in the plain white and self-coloured types, or in the fine tones and shades turned out by these people, all are well-made and attractively finished. The firm have a big range of "Judge" brand goods. Other English and Continental makes are stocked also, as well as the Swedish "KER" enamelled products. In the tinned iron hollowware Clark's British range is constantly available. Before leaving this section a Continental shipment just opened up should be mentioned. This comprises a series of aluminium kettles of exceptional value at a moderate price. The usual run of tinware is obtainable, together with "Pyrex" cooking appliances.

Cutlery and forks and spoons in a number of makes are here, and several knife-sharpeners. The "Sharpit" grinder for stainless cutlery is a little machine which has proved its worth, and other handled varieties are also reliable. Quite an attractive idea is embodied in outfits of kitchen forks, spoons, cake turners and other accessories. These are all fitted with coloured handles, and supplied in a carton containing 1 doz. of each article.

The method adopted by progressive stores of showing small household appliances on tables have given a decided "kick" to the turnover in these lines. Large assortments of such articles as egg beaters, soap savers, strainers, and the like may be found which sell for a few pence, and represent a considable sum during the year. These are all obtainable in aluminium, or in the well-known "Natwire" goods.

Stoves of all kinds include those for kerosene and spirit, in addition to the "Primus," which continues one of the best selling stoves on the markets of the world. A cheap line of nickelled towel rails is worthy of attention, as well as a selection of household mirrors. The latter are supplied either with nickel plated or wood frames, and in sheet or plate glass. Among the sundries are several new types of pot cleaner, one useful pattern having a detachable wood handle, which permits a refill to be inserted. Other details include chamois leathers and "Policloths."

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Clothes wringers are stocked in leading makes, the "Acme" being prominent. Carpet sweepers are by leading manufacturers, while a vacuum carpet sweeper, the "Brisko," is proving popular with buyers. For the winter months the firm have landed complete supplies of household clocks, every design of Westclox timepieces being now obtainable.

A reliable aluminium enamel, "Moonlight Glitter," is now being marketed by the firm. It is intended for all ironware; for stoves, bath heaters, and fenders, and is said to withstand heat most effectually, giving a fine silver finish. It is also successfully used on woodwork of every description.

John Danks & Son Pty. Ltd., of 391-403 Bourke-street, Melbourne, have a fine selection of basket grates for the approaching winter. These are supplied with or without trivets, in sizes from 12 to 18 in. All types of grates are now on display, and also every class of cooking stove. They comprise leading makes of fuel stoves, and also gas stoves. Prominent amongst the latter are the various patterns made by the K.F.B. Foundry Ltd., of Sydney, who have of late years produced enamelled lines of high quality.

Cooking vessels and appliances form a very large section in the household ironmongery department. In addition to the well-known English brands of aluminium, many fine utensils are now manufactured in Adelaide under the A.S.M. trade mark. These include saucepans, kettles, casseroles, and a number of articles such as plates and basins, which lack nothing in quality and finish.

In enamelled kitchen ware, again, a great selection is open to view. Amongst the different makes noted were Stevens' "Judge" brand in all lines, as well as the "Goat" ranges. The high-grade white enamelled goods produced by the Swedish firm of Kockums Emaljewerk, of Ronneby, under the brand of "Ker," are also stocked by John Danks & Son in all kitchen supplies. For the kitchen there are also the decorated enamelled bread and cake safes, and many sets of spice and food canisters, suitably labelled, which are both useful and ornamental. The advent in recent years of this class of container, and the fine examples of kitchen cupboards or dressers, gives brightness and colour to what was in the past days the most dismal portion of the house.

Other appliances which come under this section are the many "Universal" food choppers, corn grinders and coffee mills, which lighten the labour of the housewife. A good selection is available in kitchen scales, which are of all patterns, from the small balance to the more convenient type of scales with dial and indicator, enabling the cook to weigh her materials to the accuracy of half-ounces. Such makers as Salters, Avery, Universal, and others are all represented.

For country buyers at this time of the year the small stoves should not be overlooked. Such types as the "Primus," the "Beatrice," and similar kerosene varieties are constantly on hand, while the well-known "Perfection" class offers an efficient and reliable cooker for all home uses. All the usual items of kitchen woodware are shown, and ample supplies of the more humble tinware, which is as popular as ever for many purposes, in spite of its pretentious rivals in aluminium and enamel.

Among other appliances should be mentioned Ewbanks and Bissell carpet sweepers, as well as the new vacuum patterns, several of which are rapidly finding their way into the home. Such vacuum appliances are now obtainable at a moderate price; they are operated by hand if required, instead of electrically, and are quite effective, easy to work, and good to look at. Household wringers need also to be mentioned, one of the best known makes being the "Acme." These makers have recently placed on the market another pattern of "Acme," fitted with a drainage board, enabling them to be used as a mangle when required. The latter class are supplied in sizes 12, 14 and 16 in.

Falk, Stadelmann & Co. Ltd., of 380 Lonsdale-street, Melbourne, are agents for the "Famos" lamps, a useful line which has proved both efficient and economical. The "Famos" is supplied in all sizes, and either in hanging or table design.

For the coming season the firm have landed shipments of all classes of kerosene lamps, with all the necessary glassware. Electric lighting equipment, fittings and glass, are also carried in great variety. A kerosene stove which finds great favour with buyers is the "Petti-Bluea." Available in the cooking or heating type, this stove is highly recommended for country use. The construction is strong, and the appearance attractive.

For towns where electric current is available, a large stock is kept of all household appliances. These include electric irons, toasters, grillers and heaters, a fine display of these goods being on view in the company's showrooms.

Hawkes Bros. Pty. Ltd., of Geelong and Melbourne, have full stocks of Kenrick's tinned cast iron hollow-ware, comprising saucepans, kettles and boilers of all sizes. "Judge" brand stamped steel enamelled ware is carried in all lines, whilst recent shipments include both the "KER" and "Anglo" qualities of enamelled utensils. The firm make a speciality of "Corio" brand aluminium stewpans. These are sold in sets of five, ranging from 1½ to 7 pints, and stocks of this series are constantly maintained. Household aluminium ware is regularly obtainable in a variety of makes, and many attractive novelties render this section one worth consideration at all times.

Among the various articles of kitchen woodware a big assortment of knife boards, rolling pins, salt boxes and similar goods has been placed in stock. Quite a selection of bread boards may be seen, either of the plain type or in a number of carved designs. There are also a host of accessories in new patterns, including ladles, egg slicers, and mixing spoons, the handsome finish and white enamel making an appeal to the housewife. Other sundries worthy of mention are nutmeg graters, rustless potato peelers, and bread knives, the Burns pattern knife being one of the best available. Supplied in several different designs, the special cutting edge makes it most effective. An appliance which is well recommended is a new British chip potato cutter. This is a strong hand cutter, with special steel blades. Slight pressure of the hand results in the slicing of perfectly even chips, enabling the housewife to do this trying job efficiently and with the minimum of time and trouble.

Kitchen clocks of all kinds include a full range of Westclox alarms, the new "Ben-Hur," which is about to arrive, representing the latest product of this company.

For washing day, the "Rotary" clothes hoist is one of the best auxiliaries for the housewife. It takes up very little room in the yard, and is simple and convenient to use. The "Wheel-ur-Work" vehicle clothes basket is also most useful, saving the labour of carrying the washing to and from the lines.

J. S. Kidd & Co. Pty. Ltd., of 410-12, Lonsdale-street, Melbourne, hold a complete stock of all lines of enamelled ware by leading British makers. Such manufacturers as the Welsh Tinplate, Bulpitt, Anglo and Collins are available from recent shipments. In aluminium, again. saucepans, kettles, stewpans, and other utensils of English and American patterns are to be found in all sizes, and also a fine assortment of the A. S. M. (Adelaide products). This Australian

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line has given complete satisfaction to users, and their range includes saucepans, billies, frying pans, and casseroles, of a quality and finish which leave nothing to be desired.

The firm have now landed supplies of "Pyrex" ware, in all popular shapes. In wire-goods there are the well-known designs in egg beaters: the "Dover," "Ladd," and "Dainty Whirl" in all sizes. Another arrival in this section is the "Blue Whirl," a new pattern which finds favour not only for its efficiency, but also on account of its attractively coloured handle. This is of a pleasing blue tone, and follows the modern idea of giving brightness to the kitchen. The "Blue Whirl" is neatly packed in display boxes, an enamelled hook being provided to hang the package.

A special offer of American carpet sweepers at a reduced price is being made by the firm, the reason for this being that they find themselves heavily overstocked.

Full supplies of every description of polishing mops are offered, in either cotton or wool, and the particular oil for each make of mop is constantly available. Recent arrivals from Britain and America include leading makes of clothes wringers; several new patterns are now to be had. Other domestic appliances are coffee grinders, food choppers, sad irons, can openers of all kinds, sanitary paper and fixtures.

For the winter season there are some excellent fireside sets, and in these wares some fine designs are to be had. The firm of John Harper & Co. Ltd., of Willenhall, might be specially mentioned for the attractive way their products are constructed and finished.

The past season witnessed an increasing demand for all classes of fly killers. It is considered that retailers will be well advised to look ahead early for these requirements. A number of good preparations and appliances for the purpose are offered, such as "Gorgon" fly papers and "Regal" and "Kantmis" swatters. Patents such as "Flytox," "Lotol," "Bono," and "Mortein" are all in demand, and are obtainable in all sizes.

Since this firm undertook the manufacture of tinware in all its branches, considerable progress in these wares has been made. Every household utensil is being produced at the factory with success. Buckets, dippers, cake tins, meat dishes, washing basins, bread tins, and similar tinware supplies are always on hand at moderate prices. Included in this range are various patterns of meat safes, which have been designed with a view to meet local requirements.

Levy Bros. Successors Pty. Ltd., of 271 Lonsdale-street, Melbourne, advise the arrival of big parcels of aluminium kitchen ware. These include a good line of convex saucepans in sets of four and five, in either plain round or panel sides. The panel design finds a good sale, and is most attractive to the housewife. Three and four quart kettles are also obtainable to match the above. A cheap type of colander of the same material is well holed, and is fitted with "feet" instead of the usual round stand, a new idea which obviates the accumulation of dirt. Preserving pans are of 8, 10 or 12 quart capacity, and have either bail handles or two side handles. Very large assortments are available of small aluminium accessories, including candle-sticks, funnels, soap trays, lemon squeezers, tea strainers, nutmeg and bread graters, and children's plates.

The firm are also showing aluminium boilers, a kitchen utensil which should prove a welcome addition to the list of such requisites. Supplied in 2, 3 and 4 gallon capacities, these are of cast aluminium. A good wearing type of kettles in either 4 or 6 pints can also be recommended. In this section should be placed a novelty line of aluminium spoons and forks with fancy handles; the shape is quite new, and it may be safely predicted that this will be found a "catchy" set of goods.

The range of enamelled ware is again excellent. The ever-popular "Judge" brand is firmly established, and is handled by this firm in all utensils, as well as the "Goat" quality in the same material. Teapots, kettles, colanders, pie dishes, bowls, frying pans are all safe buying in this class of ware. A new shipment includes English stew pans, in brown and white, in sets of five, the largest size being fitted with front handles for convenience in lifting. These are reasonably priced, and the finish leaves nothing to be desired. Some useful xylonite salad servers are now displayed, a design which also comments itself.

Quite a special offer is made in a parcel of metal mounted china ware, a recent and somewhat unique range which combines strength and utility. This comprises such lines as tea sets, tea and coffee services, jugs, butter dishes, cream jugs, sugar and slop basins, and fruit plates, and represents one of the best displays the firm have had for some time.

A shipment of metal handled desert and table knives, and stainless metal handled table knives of neat pattern, are all worthy of notice. These are quite low priced, and another range of ivorine handled table knives is even cheaper; both of these two classes represent fine value in this department.

Thos. Mitchell & Co. Pty. Ltd., of 360 Lonsdale-street, Melbourne, are manufacturers of household brushware of every description, including scrubs, nail brushes, hearth and stove brushes, as well as hair brooms, under the "Victor" brand. A special cotton mop, known as the "Boss," is recommended for strength and hard wearing qualities. In this department there are also the different polishing mops, such as "Poli-shine," "O'Cedar," and others. One of the best of this type is the South Australian-made "Punch" mop, which has greatly increased in popularity. It is strongly constructed, the materials and fabric used having proved durable in use, and standing up to the work in a satisfactory manner.

The standard makes of carpet sweepers are displayed by the firm, both the "Bissell" and the "Ewbank" being proved appliances. The advent of the vacuum cleaner has not appreciably affected the carpet sweeper, which is apparently able to exist side by side with its competitor. An electric vacuum machine, the "Torrington," is also stocked. This is a carefully selected make, and can be recommended. Other household lines which should be mentioned are clothes wringers, the "Acme" patterns being largely supplied; coir door mats, in all sizes; and clothes baskets of all patterns. Kitchen woodware is carried in all its branches, the firm having their own factory, and a large range of tinware of all kinds.

A special make of white enamelled ware is the "Victor," which is made to the firm's order. It is intended to meet the demand for a reliable quality of enamel which can be retailed at a very reasonable figure, and yet be confidently recommended to buyers. In this range is included practically every requisite for kitchen use: jugs, buckets of all kinds, wash basins, colanders, pie dishes, pudding basins, handled dippers, sink drainers, plates, mugs, and small articles. Large stocks of this ware are always available. Many other makes of enamle are kept. "Judge" brand in all utensils; kettles, saucepans, boilers, and teapots, the latter including some fine coloured patterns: Anglo goods, V. D. S. and others.

In aluminium, again, the "Chieftain" brand is prominent, "Pyramid" kettles, frying pans, stewpans, and all kitchen ware; and a useful "Victor" line consists of sets of five stewpans in pure aluminium at a moderate price. There are also a number of the sundries which are constant sellers whenever shown; mugs, salts and peppers, fish and egg slices, funnels

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and similar articles. A handy preparation which finds a ready sale is "Abraizo," which cleans aluminium speedily and safely.

The "Universal" food choppers are well-known to the trade everywhere, and a recent shipment of these appliances includes all sizes in general use. Kitchen canisters in sets, or singly, are nicely decorated, inscribed with the names of the various foods, and serve to brighten the kitchen. Bread and cake tins are also obtainable of a similar pattern. The firm are distributors for the Tasmanian made wooden clothes pegs; these are put up neatly in cartons, and the pegs are waxed to obviate the danger of tearing or injuring delicate fabrics.

"Victor" steel fire shovels are a standard pattern for use in the house; fitted with wood handles, this shovel meets the need for a good sound article at a low figure.

George Russell Pty. Ltd., of 452-60 Flinders-street, Melbourne, advise a comprehensive stock of kitchen ware and household requisites. Included in this section is a recent shipment of Swedish enamelled utensils: stewpans, kettles, coffee pots, teapots, billy cans and buckets.

Of Stevens' well-known pearl enamelled ware leading numbers are constantly available, such as long-handled saucepans, stewpans, kettles and all similar vessels for kitchen use. "Judge" brand enamelled ware continues one of the most consistent selling lines, the quality and finish of this make giving every satisfaction to users. Full supplies of aluminium ware are also kept in well-known makes.

Amongst a very large range of woodware all the regular articles might be enumerated—rolling pins, bread boards, spoons, ladles, spice and salt boxes. In bread boards a good variety of patterns enables the retailer to make quite an attractive show of these useful table requisites.

Another constant mover is the now popular "Ladd" egg beater. Supplied either with metal or enamelled wood handle, the superior beating power of the "Ladd" saves the time and energy of the housewife. The familiar "Dover" beater has still a large demand and is always stocked. The small accessories are a profitable department for the retailer. Although low in price, so constant is the inquiry for these kitchen sundries that if properly displayed they form quite an addition to the annual turnover. These include the many aluminium goods such as potato mashers, cooks' spoons, lemon squeezers, strainers and soap savers. There are also the many patterns of pot cleaners, scrubs, mitts, sink brushes and a host of others.

The selection of household cutlery is very complete. In addition to the various kinds of potato knives and bread knives, table knives are carried in stock from English makers such as Johnson, Needham, Veall and Tyzack, and many others, while in spoons and forks Page's goods are largely handled, also prominent brands in the stainless variety.

Besides the usual brooms and household brushware, the firm draw attention to their stock of floor polishing and washing mops, which are now established as every day needs in the trade. There are also Bissell and Ewbank carpet sweepers, all designs.

Important appliances which should not be overlooked are wringers, stocks of which are now landing, and "Universal" food choppers, which are in sizes 0, 1, 2 and 3. Winter brings demand for alarm clocks. The Westclox patterns, such as "Big Ben" and "Glo-Ben," as well as the smaller types of this make, are now arriving.

Mr. T. W. Sands, of 372 Lonsdale-street, Melbourne, is a supplier of lighting and heating specialities for household use. One of the leading lines carried is the "Ironclad" incandescent table lamp, which gives a pleasing light of 85 c.p. on a most economical consumption of oil. Using the incandescent mantle principle, this lamp is claimed to give 16 hours' continuous burning to a quart of kerosene.

For those desiring electric light and power, the "Sunbeam" is a self-contained plant, automatic in starting, which may be used to supply electric iron, vacuum cleaner, separator and similar devices. Another useful line is a self-heating petrol iron, the "Coleman," which is designed for country districts, obviating the old method of heating irons on a wood fire.

A number of interesting contrivances include air gas lighting systems, the Coleman "Quick-lite," "Evening Star" table lamps and lanterns, and the "Delaygue" ice stove. The latter is an ice chest, to which is fitted a simple freezing attachment which requires only the simple application of heat. A Primus stove is sufficient to operate the "Delaygue," which is said to present no problems or difficulties in use, and works satisfactorily in the hottest summer.

The Month's Cablegrams

Copper, Tin, and Silver. — The following table shows the quotations at the undermentioned dates, compared with those of the corresponding periods last year:—

	Copper. Electrolytic. Per Ton.		Tin. Standard. Per Ton.		Silver. Standard. Per Ounce	
Date.	1926	1927.	1926.	1927.	1926.	1927
	£	£	£ s. d.	£ s. d.	d.	d.
Feb. 28..	£66–66½	£62⅝–63¼	293 15 0	305 2 6	30¼	26½
Mar. 3..	£65½–65¾	£63–63¼	292 12 6	316 7 6	30⅜	25 11/16
„ 9..	£66–66¼	£62¼–63	293 12 6	315 17 6	30⅜	25⅝
„ 16..	£66¼–66⅜	£62⅜–63¼	299 2 6	314 15 0	30½	25⅝
„ 23..	£66½–66⅝	£62⅝–63⅜	291 5 9	312 17 6	30½	25⅝
„ 30..	£66½–66⅝	£62½–62⅝	292 2 6	309 7 6	30⅛	26 1/16
April 4..	£64⅞–65¼	£62–62½	287 17 6	311 7 6	30	26 1/16

The stocks of tin in the United Kingdom at the end of March were 14,319 tons, the deliveries for the month 2353 tons, the quantity on spot 276 tons, and the quantity afloat 2060 tons.

Lead.—In the London market, soft foreign lead on spot has been quoted as follows:—March 3, £28/12/6; March 9, £28/3/9; March 16, £28/2/6; March 23, £27/3/9; March 30, £26/17/6. April 4, £27/3/9.

For the month of February the imports of lead into the United Kingdom were 30,137 tons, including 10,740 tons from Australia. The exports were 1,660 tons.

Spelter.—The spot quotations for spelter, as cabled from London, have run as follows: March 3, £31/2/6; March 9, £31; March 16, £31/2/6; March 23, £30/7/6; March 30, £29/17/6; April 4, £29/17/-.

Tallow.—Following are the statistics for March, and particulars of the latest auction sales:—

Mar.	Casks.	Date.	Casks Offered	Casks Sold.	Mutton, Med., per cwt.	Beef, Med. per. cwt
Imports	1260	Mar. 2	1615	681	34/	34/–
Delivery's	1579	„ 9	1545	388	33/6	33/6
Stock	7534	„ 16	974	104	33/6	33/6
		„ 23	Nil			
		„ 30	1187	980	34/	34/–

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HARDWARE AND MACHINERY

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For 30/- per Annum we will supply (in addition to above) The Ironmonger (London), weekly, and a copy of The Ironmonger Diary. All Post Free. Single copies 1/- each. Subscriptions payable in advance.

Advertisers will kindly note that all alterations to Advertisements should reach us by the 25th of the month.

Chromium Plated Steel.

(From "Chemical Age.")

The inordinately heavy toll exacted by corrosion on all metals in common use, more especially on iron and steel, draws attention to the question of chromium plating. The importance of the question in industry is borne out by the increasing space now being devoted to it in the Continental and American technical press. Comparative tests have shown conclusively that alike under the influence of atmospheric corrosion, the action of steam, and exposure to the most severe, perhaps, of all such agencies, salt water spray, "chrome plate" behaves far better than platings of other metals. It is found, however, that the chromium plating must not be less than a certain thickness, as thin coatings are apt to prove porous, and so become susceptible to corrosion. To save expense, an intermediate metal may be employed to bind the steel and the chromium together, and both nickel and cadmium have been used for this purpose. It has been found in practice that nickel is more satisfactory; with cadmium as the underlie there is a tendency to stripping, and chromium plated over cadmium will not give the high degree of polish found possible when nickel is used as a preliminary coating. The polish is in itself protective, as it is well known that surface roughness affords loci for the commencement of the processes of corrosive deterioration.

Apart from this consideration there are serious difficulties in chromium plating technique which can only be overcome by experience, and may entail expensive failures until that experience has been gained. The temperature of the electrolyte has to be kept fairly low. A solution of 30 per cent. chromic acid and 1 per cent. sulphate is recommended by one authority, with a current density of 0.8 to 1 ampere per square inch. The bath is, in this case, cooled with water. There is some conflict of evidence as to whether carbon will diffuse through chromium, but most authorities agree that it does not. A chromium plated part cannot, therefore, be case-hardened or cemented. One of the most useful applications of chromium plating is for the plates of bank and other engraved notes which have to withstand continuous abrasive wear during printing. Such chromium plated surfaces are said to be in use in America, and the hardness is far superior to anything previously attained.

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Going Into Business For Yourself.

I remember a young man telling me that his ambition was "to be in business for himself." As I knew him very well I ventured to point out—kindly I hope—that if the words were to be taken literally, his ambition never could be realised. No man, I told him, can ever be in business for himself; always he is in business for others.

That is an aspect of business that we should never allow ourselves to forget. Business is service, and, when we get to the rock bottom of it, service is the only commodity any of us has to offer. Whether we render it by making, by selling, by sitting in an office or by selling behind a counter, it all comes to the same thing—we are judged or rewarded according to the service we give.

So whether we work under someone else's lead, or under our own banner our guiding principle should be to give the Public the best service it is possible for us to render. And it must be willing service—service so cheerfully given that it will seem both to our customers and ourselves a pleasure, not an obligation.

If we accept this view and ever strive to increase the value of our service to the community we shall find that the joy of life is not confined to the leisure hours spent at home, or in pursuit of pleasure, but that it enriches the hours spent at the counter or at the desk. Like the quality of mercy which "blesseth him that gives and him that takes," acceptance of service as a guiding principle mellows and enlarges our outlook on business life.

I know full well the difficulties you have to encounter—the patience and forebearance you need to exercise with certain of your customers, but if all were plain sailing where would the satisfaction of achievement come in? An awkward customer is simply an obstacle to be overcome—a test of your endurance and patience. Look at it in that light and you will be surprised what pleasure you get in putting patience and consideration against ill-temper and contrariness.—"The Pen Prophet."

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A Certain Seller

CALCIMO

THE ORIGINAL COLD WATER KALSOMINE

Wholesale Distributors for Victoria:

BROOKS, ROBINSON & Co. Ltd.

59-65 Elizabeth Street, Melbourne

Old v. New in China

(From "The Chinese Economic Bulletin.")

Illustrations are manifold of the struggle in all countries between man and the machine in the development of the world's economy. Machinery has now supplanted hand work in the West, and new economic processes are therefore absorbed without much difficulty. But China is in the midst of this struggle between old and new. Its hand labourers, like their Western confreres a century ago, are faced with the problem of accommodating impersonal methods of production in industry. The problem is infinitely more difficult of solution in China than it was in the West. China has an immense supply of labour to spare, but by an intricate delimitation of functions, has been able to maintain the maximum diffusion of employment. Much of this is casual, and therefore the first to be hit by the introduction of machine carriers and producers, for the transformation of bases of economy has always been accompanied by the temporary dislodgment of the hewer of wood and drawer of water from their place in the scheme of industrial life. Then there is the problem of traditionalism to be overcome, as respect for age-old methods and manners is as firmly rooted in China as a religion.

The first railway in China, a fifteen-mile narrow gauge line between Shanghai and Woosung, was torn up by the irate populace fifty years ago. Apart from considerations of tradition and "feng shui," the people feared lest the introduction of the iron road would rob them of their livelihood. Here was an inanimate thing which seemingly left them with nothing to do but starve to death. Now the railway has been absorbed, and by the fillip it has given to production and trade and employment, is now an integral part of China's economic structure.

Instances of the hard fight for hospitality of new ideas could be multiplied. The ricsha pullers are continually at war with bus and tramway companies. They see their customers entirely taken away from them, and so demonstrations and strikes are periodically engineered throughout the country against the introduction of the monster machine carrier.

Kerosene oil has now so far displaced every other illuminant that the manufacture of bean oil for the old time saucer lamp has almost entirely ceased. The new illuminant has penetrated into the far interior. Electric lighting is on the way to establishment throughout the country. But modern water works are not so entrenched and from time to time an outbreak on the part of the labour affected by their encroachment on the preserves of the old-time well and river water purveyors is reported.

Such a one has just flared up in Peking. Although the water works in the capital was established in 1909, the water carriers still ply their trade, and compete strongly with the water supply company, which is not yet big enough to supply the whole community. Double-tubbed wheelbarrows, manipulated by brawny coolies, who are mainly Shantungese, are still familiar sights on the streets. Trouble has been brewing ever since the establishment of the water works. It boiled over on June 8. On that date the carriers went on strike. A merchant decided to apply for laid on water, and the carriers, on the Biblical theory of the importance of one sinner, trained their organisation on the task of dissuading him. But the modern minded merchant proved obdurate, resisting all attempts at intimidation. The water men stayed their agitation for a time, but while the plumbers of the company were engaged in laying the pipes, they were set upon by their rivals for the merchant's custom. A fight ensued and the police carried off the protestants to the police station. In consequence, the guild of the water carriers decided to suspend supplies until the arrested men had been released. And, this being a suitable occasion for the ventilation of their general grievances, they further demanded that the water supply of Peking should henceforth be solely furnished by the carriers. They also gave out that when supplies were resumed, prices would be raised by two coppers per brace of buckets. Propaganda was also started against the water works to the effect that their water supply was contaminated.

The police eventually took strong action by forbidding any suspension of supplies, and the strike was broken on June 9. Yet, the failure of the movement has by no means damped the hostility of the carriers. Nor has it ended their agitation for an increase of rates. At present they charge three coppers for one load of two buckets, altogether weighing 50 catties (about 67 lb.). Prices of water, as of other things, have gone up abnormally in recent years. Formerly a load cost 1½ coppers. In addition, the consumers have to pay extra tips on festival days. Newcomers in Peking are often mulcted to the tune of 6 to 10 coppers for each load, otherwise no water is supplied. In this intimidation, they are supported by their confreres, who refuse to undertake the contract in case a dispute arises between supplier and consumer, who is therefore coerced to submit to any exorbitant demand.

[The article goes on to show that while Peking boasts a regular or main system, from which a large number of houses especially in the foreign quarters draw their supply, most of the inhabitants still depend upon wells for their drinking water. This is largely because they consider the charge imposed by the Peking Water Supply Co. too high. Public and private there are over 3000 wells in Peking, some of them shallow with a doubtful or salty water, and others deep with steel pipes and cemented upper walls. These deep modern wells always yield sweet drinkable water.—Ed.]

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Electric Light and Power for Country Homes

(By F. M. B., 39/204)

An amelioration of country life is found in the installation of electric light and power, either from a local supply or from a private lighting set. Those within the radius of an electric supply area have no need to consider which is the better method. Although it might seem costly to run the transmission line to any particular place, it is well to remember that supply from a central station is more or less unlimited. It is possible, that is to say, to have installed almost any desired appliance, knowing that there is sufficient current available for its operation. With a home lighting set, this is not always so, as will be shown later.

The prospective buyer of a home lighting plant has many things to consider. Is the plant required for lighting only or power only, or for both light and power? Light only may be required, and this during weekends only. Or if the house is at the seaside, during the hot months only.

Take the plant required for lighting only, and say that fifteen lights are needed altogether. In such case a plant of 500 to 750 watts capacity should be installed. If the lighting is to be used all the year round, a storage battery is necessary for use in conjunction with the plant. This would allow for the plant to be run two or three times per week to charge as required the battery from which current for the lighting is drawn. Should the light be needed for a week-end, or seaside home, it would be better to instal a non-battery type plant —either semi-automatic or fully auotmatic, the latter for preference. This would do away with the bother of attending to the battery when the plant was not being used, and would eliminate battery depreciation. Were a large number of lights required it would be necessary to have a plant of greater capacity.

With the plant required for power only, a non-battery plant would be advisable, as greater efficiency is obtained from a direct supply than from the battery, especially since the current demand is constant.

Where light and power are both required, a large storage battery plant is imperative, because a large current would most likely be necessary for power, and current would be used both day and night. Thus a large reserve must be available.

The general principles should always be kept in mind, and the proposed installation discussed with a man who knows what amount of work his plant will do. In all three cases quoted, foresight is essential. If only fifteen lights are required at the time of installation, there would most likely be more later. Or an iron may be required, and all these things must be considered. Better to have a plant too large at first, than one too small at a later date.

When considering power and lighting, such items as wattage consumption must be considered. Lights are not usually all burnt at the same time. Hence a slightly higher number than the output of the plant could be installed. Power appliances such as fans and vacuum cleaners, are quite in order, as they take but little current, and are used only now and then. But when heating devices are used, a large current must be available, and usually it is necessary to run the engine while using such appliances. Such a high rate of discharge taken from the battery direct would not be advisable, as it would shorten the life of the battery. Here it will be seen that, where possible, it is always advisable to instal a large plant, or better still, take current from the local electric supply authority.

Once the power is available from the local authority there is very little need to worry, but with a household plant care and attention are necessary. In such case the first essential is to provide a good engine house. No one would leave a motor car out in the weather. Neither should the lighting plant be exposed. Regarding the site of the engine house it should be situated as near as possible to the centre of the main load. If, for instance, twenty lights are needed in the house and two in the garage, the best position is near the house. Should the distance between the two places not be great, it becomes a matter of choice. If for any reason the plant must be placed away from the house, arrangements could be made with those carrying out the installation. The site having been decided, the house should be substantially built, with a cemented and well-drained floor. The room should be cool, especially the part where the battery is to be kept.

The choice of plant rests solely with the customer, and such questions as fuel consumption, oil usage, depreciation, average life of battery, etc., must be taken into account. Another question often raised is that of the cooling system. Both air-cooled and water-cooled plants are used throughout all climates, and neither has yet proved unsatisfactory. Much depends on the method of using the water or air, or arranging its path "through" the engine. Practical proof of performance should be obtained for different plants, a comparison made, and a purchase effected through a reputable firm, who can, and will, offer advice, and who carry spare parts.

An automatic cut-out is an advantage with battery plants, as the engine is automatically stopped when the battery is charged. This prevents any likelihood of the battery becoming overcharged should the user be called away at any time, and forget the running engine.

Only up to 85 per cent. of the energy put into a battery is taken out of it, but the use of a battery is recommended for its convenience. With a non-battery plant the engine is running all the time a light is required, whether there is one or ten lights on. Although provided with a fuel control, the running costs are higher than the battery plant, where only the current required is used. Against this, however, there is the depreciation of the battery to be allowed for, the average life being about five years.

The conclusion to be drawn from these remarks is that the initial cost must be taken into consideration with the capacity—whether a limited or unlimited electric supply is available.

Where a flat rate per room is in operation, or where a supply company charges a room rental, and a small current charge, the occupier of a many-roomed house would be well advised to compare the proposed supply very carefully with a private lighting plant, as regards running costs, and other considerations.

All wiring should be done by, and all subsidiary appliances obtained from, the firm who supplies the plant, or the electrician who looks after maintenance work in the district concerned. Speaking generally, these are in the best position to give good advice and satisfactory service.

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Rubber Hose: Its Manufacture and Uses

By A. M. Munro, M.A. (Oxon.) Chief Chemist, Dunlop Rubber Co. of Australasia Ltd.

One of the most important and varied branches of rubber manufacture on what is generally known as the mechanical side, as distinguished from the tyre side of rubber factory practice, is that dealing with the construction of the many classes and sizes of hose which are now employed for domestic and commercial purposes.

In addition to the familiar garden hose, various types are in use on an enormous scale in various parts of the world, and may be roughly classified into those employed for vacuum and Westinghouse pressure brakes on the railways, breweries, fire purposes, steam pressure, hydraulic, diving, air for pneumatic tools, etc., spray, gas, water, dredges, suction, and many other purposes. Although these different kinds of hose are constructed by special methods, most suitable in each particular case, the preparation of the rubber and cotton is the same for all, and a general plan of procedure is usually followed.



General View of Hose Shop

Until within the last few years raw unvulcanised rubber as it is received from the plantations in Ceylon, Malaya, or South America, was not a very familiar substance to the general public, and its appearance and general properties were only known to the manufacturer, but since the advent of the crepe rubber tennis shoe, and the other products such as the crepe rubber bath mat, its characteristics have become more widely appreciated. In the crepe rubber shoe it is seen as a translucent pale yellow substance, tough and exhibiting great resistance to frictional wear, but not particularly prominent for elastic quality. It is only by vulcanisation, as will be explained later, that this raw rubber can be given the elastic qualities so characteristic of a hose or motor tyre.

Over 90 per cent. of the rubber in use to-day is derived from a tree known as the Hevea Brasiliensis, which for the most part is artificially cultivated in the tropics, in districts where the rainfall is high, and the atmosphere uniformly warm and humid. Ceylon, Brazil, Malaya, Java, Sumatra, and New Guinea have climates suitable for rubber production, and are large contributors to the world's supply, which, during 1926, was estimated to have reached the very large figure of 650,000 tons. It is interesting to note, too, that of this quantity about 70 per cent. was used in the manufacture of motor tyres. Rubber has now become one of the main raw materials for the maintenance of modern civilisation, and its cultivation and methods of preparation rank in importance with cotton, petroleum, iron ore, and Portland cement, as a basis on which our complex modern life rests.

Rubber is obtained from a milky juice, or secretion, from the Hevea tree, called "latex," and in the early days of the industry most of the rubber used was collected from this tree, which was indigenous to the Amazon valley, and grew in the wild state. The latex was secured by making herring-bone cuts in the bark of the tree and allowing the liquid to drip into small cups placed to receive it. This latex was then coagulated by dipping into it a large wooden paddle, drying the thin coat by waving the paddle in the smoke from a fire of palm nuts, and repeating the process until a large ball or "biscuit" of rubber had been built up. The South American rubber prepared in this way was known as "fine para," after the port of Para, from which it was usually shipped, and it retains this name to-day, although being used to a decreasing extent, and being slowly but surely supplanted by the plantation varieties of rubber.

The history of the plantation industry contains some element of romance, for in the year 1876, Mr. H. A. Wickham, a planter and botanist, was commissioned by the British Government to secure some seeds of the Hevea tree, and he succeeded, in the face of opposition from the Brazilian Government, who wished to maintain a monopoly, in smuggling out a cargo of some 70,000 seeds under the title of "rare botanical specimens." Some of these seeds were raised at the Kew botanical gardens, in London, and the seedlings were despatched to Ceylon, whence at a later date they were distributed in various parts of the East to form the nucleus of the present day plantations. In 1900 the output of fine para rubber was approximately 54,000 tons, and of plantation rubber only four tons. To the growth of the motor and tyre industry we owe the expansion of plantation rubber production to over 600,000 tons per annum, and as has so often happened in the case of other manufactures, the experience and discoveries which have attended the development of the pneumatic tyre have largely been applied to other branches of rubber manufacture, notably to the making of hose.

On the plantations modern methods of scientifically handling and coagulating the latex in clean tile-lined tanks are in use, and as a coagulating agent acetic acid is used instead of smoke. After separation from the water, and impurities in the latex, the rubber is washed and in many cases smoked and dried, being received at the factories later in the form of the well-known smoked sheet. If pale crepe rubber is required, on the other hand, the smoking is omitted, and a small quantity of sodium sulphite is incorporated with the lace like sheets in order to prevent their discolouration in the air, and to preserve them from mould.

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Rubber Manufacturing Methods Before the Discovery of Vulcanisation.

When rubber was first introduced into Europe and America, it was moulded and pressed into shape for many purposes merely by the action of heat, and was used in its natural state. Mackintosh, the inventor who bequeathed his name to waterproof coats, found about 1826, that one of the troubles with raw rubber when employed in this connection was that it became very sticky in hot weather and hard and inflexible under the action of cold, so he introduced the method of enclosing a thin sheet of rubber between two sheets of cloth and invented what is known, even to-day, as the double texture waterproof. Similar methods of impregnating or covering strips of canvas were used in the manufacture of the earliest samples of hose.

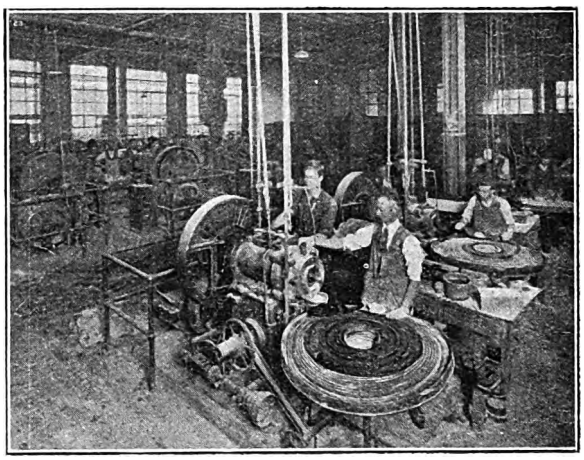
In 1839 Charles Goodyear discovered a process of modifying the physical properties of rubber, and rendering it much tougher and more elastic, which was termed by a friend of his, Vulcanisation. This consisted of mixing the raw rubber with sulphur and heating the mixture for a suitable time to some temperature above the melting point of sulphur, and from this simple discovery of vulcanisation the development of the rubber industry may be said to date. Since that time many methods of controlling and modifying the vulcanisation process have been discovered. By the admixture with the rubber of certain complicated organic chemical compounds known as accelerators, the time necessary for vulcanisation can be very much reduced, and rubbers of non-tearing quality and of very high tensile strength produced.

As manufactured to-day, hose always contains cotton fabric or duck in its construction, in order to give the necessary strength and reinforcement to the rubber, but it is possible that in the near future, with the improvements made in rubber compounds through the use of accelerators, fabricless hose may become popular. Raw rubber is more or less plastic in nature, and while showing considerable resistance to abrasion and good ageing qualities, it has very little tearing or tensile strength and elasticity. Vulcanisation increases these properties, and also enables the compounded rubber to retain the shape and size of the moulds in which it has been treated.

Treatment of the Raw Rubber at the Factory.

In the manufacture of hose it is very necessary that the rubber portion should be quite free from porosity or pinholing of any description. Porosity may be caused by impurities such as splinters of wood in the rubber derived from the cases in which it has been packed, or by grit and particles of bark, so that in order to avoid this possibility the bales of plantation rubber, which weigh about 250 lb., are cut up under a large mechanical knife or saw, and are then thoroughly washed. The washing process is carried out on a series of powerful mills fitted with horizontal fluted rollers. The back roll of the washing mill travels faster than the front, so that the rubber is torn up or creped between the rolls, while at the same time impurities are removed with a water spray.

The washed sheets of rubber must then be dried either by hanging from racks in a warm room or in some form of kiln. Vacuum drying has been tried, but is not very successful owing to the fact that the rapid removal of moisture from the sheet forms a hard crust on the rubber, and prevents the removal of moisture from the interior. The Hunter kiln principle is sounder. In this the rubber sheets are dried in a moist atmosphere at a fairly high temperature, and paradoxical as it may appear, this drying in a damp atmosphere removes sufficient moisture from the rubber, and prevents the formation of a crust on the surface. When the drying of the rubber has been accomplished, the next step consists in mixing with the rubber sulphur and certain chemicals which are added in order to give the necessary qualities to the rubber compound or stock.



Forcing Machines for the Construction of Inner Tubes

It is in this rubber compounding that the art of the rubber manufacturer comes into play, for the many ingredients which are added are not put in to adulterate the rubber, but to impart special qualities to the finished hose. Compounding is largely a chemical problem, and is invariably under the control of the chemical and research staff of the factory. To give a few examples. Carbon black and zinc oxide are added to many hoses to give high tensile strength and resistance to tearing; iron oxide or golden antimony sulphide are used for the production of red colour; barytes and silica which are unattacked by acids, are used in the manufacture of acid-resisting qualities; asbestos is incorporated in steam resisting hose, while various non-poisonous and absolutely tasteless and odourless ingredients are included in the stock used for brewers' hose. An exact balance between price, quality, and manufacturing requirements in the stock must be maintained.

The mixing of the fillers with the rubber is accomplished on large mills, fitted with water-cooled rolls. First of all, the sheet rubber is softened or broken down, as it is called, between the rolls, and the chemicals are then worked into the rubber until a uniform dough or stock is obtained. The dough can then be run into thin uniform sheet of any suitable thickness between the rolls of a calender, and used for the building up of hose, or it may be squeezed into cotton fabric or duck for the manufacture of the so-called "friction," which is used as a hose reinforcement.

General Construction of a Hose.

Most types of hose consist first of all of an inner tube of compounded rubber, which is used to render the hose watertight or impervious to air. This is then surrounded by several layers of cotton fabric, strengthened by impregnation with rubber, and known as friction. The friction serves to prevent undue expansion of the rubber inner tube under pressure, and protects the latter from shocks received from within or from without. At the same time it hinders the rubber tube from splitting should the

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hose be violently kinked or accidentally cut. This friction is then covered with a thin rubber coating, the cover of the hose, which protects the cotton from chafing and from moisture. Cotton reinforcement will not withstand frictional wear as well as rubber, nor the action of moisture or chemicals, and so must be imbedded within the rubber part of the hose just as the cotton friction in a motor tyre must be imbedded in the rubber. An exception to this is made in the provision of an outer cotton covering for some types of jacketed hose, which are designed for use in the sun in hot climates. The cotton cover protects the rubber from sun cracking and deterioration, and is sometimes supplied for railway air brake hose for service in such districts as Queensland.

In addition to rubber and cotton, steel and soft iron wire is used both internally and externally for armouring hose for use in mines and other exposed situations, and also for preventing collapse in the case of vacuum hose. Hose, too, may be strengthened with rope or marline. Instead of making use of ordinary cotton fabric, various portions of the hose may have a cotton cover woven on to it during manufacture from a special weaving or braiding machine.

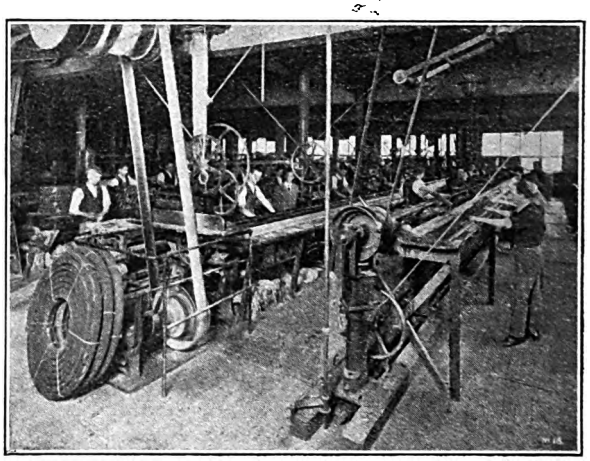
Methods of Hose Manufacture.

The internal rubber portion or tube of the hose must first of all be constructed, and two general methods are in use for this. In the case of the larger hoses, say over 3 in. in diameter, and also for short length hoses, the tube is built up from a calendered sheet of soft rubber compound rolled round a steel mandrel, and joined along its edge with a strip of rubber, the joints being wiped off with benzine to remove grease and soften the unvulcanised rubber before being rolled together.

The second general method of tube construction applied to the usual 60 ft. lengths of garden hose, and for continuous lengths of narrow bore hose of all varieties, consists in forcing a continuous tube of unvulcanised rubber through a die on a screw forcing machine. Such tubes are known as extruded tubes. A suitable length of extruded tube is then often coiled round and laid in a shallow iron tray and covered with French chalk or soapstone, placed in an open steam heater, and partly vulcanised or, as it is termed in the trade, cured.

The next operation is the application of the cotton reinforcement. With the short or large diameter hand built hoses, layers of frictioned cotton under tension are rolled on by hand, but in the case of the long lengths, the hose is put together in a hose-making machine. The machine, which is 60 ft. or more in length, and requires a large shop free from obstructing pillars for its convenient operation, resembles in some respects a huge cigarette machine. The semi-cured inner tube is first of all blown on to a long steel mandrel with the help of compressed air, and the latter is then placed in position between the rollers of the hose-making machine. A strip of frictioned duck is laid alongside, and then on moving certain levers the duck or cotton reinforcement is wound tightly round the inner tube in one operation of the machine. After a sufficient number of cotton strips have been wound on in this way, a thin rubber cover is applied, and then the whole length of unvulcanised hose on the mandrel is tightly wound with a narrow wrapping or binder of linen or strong cotton cloth. This wrapping serves to prevent the plies of cotton from separating from each other, or from the tube and cover during vulcanisation, and also hinders the development of porosity due to the expansion of traces of air or moisture when the hose is steam-heated during vulcanisation.

Transferred to a long cylindrical vulcaniser or heater the hose is subjected to the action of steam under pressure for a suitable time. It is then removed, cooled, freed from its wrapping, and blown off the mandrel with the aid of compressed air. Needless to say, without the aid of compressed air the vulcanised hose could never be removed from the mandrel, and even when air is used, a large amount of French chalk or soapstone is also employed to facilitate the operation. In this manner are constructed the well-known 60 ft. lengths of garden hose.



Machines Constructing 60-ft. Lengths of Garden Hose

Another standard type of hose, generally known as braided hose, is constructed in a somewhat different manner. First of all an inner tube is made in the forcing machine, and this either in the uncured state, if it is sufficiently stiff, or in the semi-vulcanised condition, has a cotton cover woven directly over by a special type of weaving or braiding machine. At the same time while the cotton is being put on, the hose is automatically painted with a vulcanising rubber solution which completely covers and impregnates the cotton. A cover is then put on the hose, and the latter is vulcanised a length at a time in a narrow hydraulic press, of which the platens are corrugated. By splicing and vulcanising the joints, continuous hose can be manufactured such as the well-known red and black ribbed garden hose.

In America, in such firms as the Goodyear, Hewitt, Goodrich and Boston Woven Hose companies, the press method of vulcanisation for this class of hose has recently been entirely replaced by the interesting and economical lead process. In the lead process a continuous sheath of lead is forced out of a powerful extruding machine together with the rubber hose, and the hose is vulcanised inside this lead covering, the necessary pressure being afforded by water or compressed air within the hose. After vulcanisation is complete the lead sheath is stripped off and the lead used over again. At another Pennsylvanian factory still another ingenious device is made use of. Stout iron wires are run out of a machine together with the rubber hose and completely cover it, so that the hose is vulcanised within the wires, the corrugations in the cover being formed by the wires themselves.

Included among the other variations of standard hose practice are such processes as those concerned with the winding of steel and iron wire either round the outside or between the plies of the hose.

Among special types of hose mention may be made of the following:

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Railway Air-Brake Hose.

As by far the largest user of this type of hose are the American railways, the hose is always made according to the specification of the American Railroad Association, and the requirements for Australian railways are also based on similar specifications. The main requirements which this hose must fulfil are as follows: The hose must be soft and pliable, and built up from rubber and cotton fabric only, although the actual composition of the rubber is not stated, but is left to the experience and knowledge of the manufacturer. The hose is made up of an inner tube not less than $\frac{1}{32}$ in. in thickness, at least four plies of canvas or duck and an outer cover of the same quality as the inner tube. This is not to be less than $\frac{1}{16}$ in. in thickness. The thickness of the end cap, which is vulcanised on, is allowed to vary between $\frac{3}{32}$ and $\frac{1}{32}$ in.

Certain tests are then specified which the rubber of the cover and the tube, as well as the finished hose, must pass. A dumbbell shaped test piece is cut from the tube and cover, and on it gauge points are marked at a distance of two inches apart. The piece is then stretched in a suitable tensile testing machine until the test marks are 10 in. apart, and the piece is immediately released. It is then again stretched, and held with the gauge marks 10 in. apart for a period of ten minutes. After being released the initial set or stretch of the rubber is measured and should not exceed $\frac{1}{4}$ in. The rubber is then allowed to rest, and after a further ten minutes the final or permanent set should not exceed $\frac{1}{8}$ in.

The stretching test described above is a valuable one, as it will easily be appreciated that it gives a measure of quality of the rubber which has to stand up for long periods under pressure. It also indicates whether the rubber compound is likely to harden unduly during service. A tensile test of the inner tube and the outer cover is also required, a standard test piece being slowly stretched between the jaws of a machine such as the Scott tester. The inner tube must have a tensile strength of at least 800 lb. to the sq. in., and not more than 1200 lb., while the cover should give a minimum of 700 lb. and a maximum of 1100 lb. A porosity test, made by subjecting the hose to an internal air pressure of 140 lb. is also required, the outer cover being cut to expose the canvas. When the hose under these conditions is immersed in water there must be no sign of air bubbles due to porosity. The hose is then subjected to a further hydraulic pressure of 200 lb. per sq. in., when its outside circumference should not show an increase of more than $\frac{3}{4}$ in., while the hose should also withstand a pressure of no less than 500 lb. per sq. in. for a period of ten minutes, and finally not burst under 700 lb. pressure.

These figures have been quoted at some length in order to illustrate the elaborate precautions taken to secure quality in a standard type of hose, on the ultimate performance of which the safety of our trains and travelling public largely rests. Equally important with the rubber is, of course, the cotton duck used in hose manufacture, for the pressure resisting powers of the latter depend mostly on the fabric, and on the fact that the strips are cut at an angle of 45 deg., or, as it is said, "on the bias."

Vacuum Hose for Railway Brakes.

This hose, which is often of a larger diameter than the air-brake hose, differs principally from air-brake hose in carrying between its plies an internal armouring of spirally wound iron or steel wire. This wire is put in to prevent the hose from collapsing when evacuated so that the outside of the hose becomes subjected to an external pressure of nearly 15 lb. to the sq. in. In order to ensure good quality, in addition to any of the usual tests, vacuum hose is also tested for possible leakage and porosity, when exhausted by a powerful vacuum pump. It must be capable of retaining 20 in. of vacuum for one hour, with a drop of not more than 2 or 3 in. Vacuum hose when exhausted tends to shorten as the wire spiral contracts, and limits of not more than 5 per cent., or less than 3 per cent. are allowed in order to give the desired flexibility.

Steam Heating Hose.

This class of hose must be constructed from rubber compounds which will withstand high temperatures for long periods without hardening, cracking or developing any mechanical faults, and it is in cases like these that the art and skill of the rubber chemist and manufacturer is exercised to the full, it being now recognised that rubber compounding must be left to the experience of the manufacturer, and not as a rule stated in those specifications which deal with certain tests with which the hose must conform. Steam hose is either subjected to what is called the rack test, during which steam at high pressure is passed through for some hours, or to a steaming test in some kind of closed heater or autoclave in which the whole of the hose is immersed in steam under pressure. The rubber and cotton duck in the hose is tested in the usual manner before and after steaming, and certain limits are allowed for alteration in its qualities.

Many other kinds of hose will be familiar to the reader, but it may be said, in conclusion, that most of these differ only in detail from those types which have already been described. Alteration in the number of plies of cotton duck used, in the weight of the latter, and in the scheme for external and internal armouring, will produce surprising variation in the quality and powers of the finished hose. In the matter of size there is hose ranging from half inch diameter water hose to hose sufficiently wide for a man to stand upright in, suction hose used for dredging purposes, while, as far as quality is concerned, it is possible to manufacture a very low-priced garden hose which will stand a bursting pressure of some 200 lb. to the square inch, or hydraulic hose which will not burst under a pressure of some thousands of pounds.

What Do Errors Cost You?

A certain manager of a retail shop tried to find out how much he was losing by the errors of his staff.

Here is what he found.

He found out that his sales people were making mistakes in adding up figures at the rate of a penny per sale. This amounted to £2 per week per salesman.

He found that 40 sales people made 115 errors in 16 weeks, in writing out customers' names.

He found that the loss of yardage from careless measurements amounted to 19/- in one day in one department.

He found that tissue paper and wrapping paper were being wasted at the rate of £60 a year.

He looked up 100 customers who had stopped buying at his shop, and he found that 52 of them had stopped because of rudeness or errors on the part of the sales people.

In short, he found out that his sales people were making thousands of mistakes.

Errors were costing him more than the rent.

Very few merchants are aware of this because they have never made a personal investigation. But it is usually a fact—errors cost more than the rent. —"Efficiency Magazine."

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Electrical Progress in New Zealand

By W. B. M. (47/204)

"Wanted: Domestic Help, for country township; one with knowledge of electrical cooking appliances preferred."

This advertisement, taken from a New Zealand newspaper, tells a story. It presents in simple and direct fashion, a phase—and a very important one—in the electrical development of the Dominion. The use of household electric utilities is increasing from one end of the country to the other. Again and again forecasts as to the growth of the demand for electric current in city, borough and country, have proved to be far too conservative, power boards, after a couple of years operation, having called for more current than they had contracted to take at the end of five years!

The popularity of electric services in the country districts is a striking feature of the supply of electricity throughout New Zealand. That electric lighting would find general favour goes without saying, for this is a service that "sells itself," even among conservative folks, such as farmers are popularly—but often quite erroneously—supposed to be, but very few people would have predicted the widespread popularity of the electrically-driven milking machine, water heater, and motor, for miscellaneous power purposes on the farm.

A return of the number of electrified milking-machines in the different districts gives an indication of the extent to which electric power is being utilised in this highly important New Zealand industry. Figures to the end of the first quarter in 1927 are not yet available, but the total number at March 31, 1926, was 4856, compared with 3581 for 1925, an increase of 1275, or 35 per cent. In 1923 there were 1310 electrified milking-machines, so that the increase for the three years reviewed is 3546, or 270 per cent.

It is particularly gratifying to note how the advent of electric power is bringing conveniences to the rural districts, for such facilities should greatly improve living conditions and tend to check, in some measure, the drift of population to the cities. From a national point of view the most important result which is anticipated in the Dominion from the development of hydro-electric power is resulting from its extension to the farming and dairying districts.

New Zealand is particularly well provided with available water-power, and has appropriately been termed "The Switzerland of the Southern Hemisphere." The total water-power available in the Dominion in sources of 1000 h.p. or more is about 770,000 h.p. in the North Island, and 4,100,000 in the South Island; the largest blocks of power are, however, situated in very inaccessible locations in the southern fiords, although fairly close to navigable waters.

With such extensive resources in water-power, it is understandable that attention should be directed to its development fairly early. A large number of temporary water-wheels were used in connection with gold mining, particularly in Otago and Westland, from 1852 onward, and a small public hydro-electric supply plant was installed at Reefton in 1887.

Several other small hydro schemes were carried out in later years, but it was not until 1904 when a start was made to harness the Waipori Falls, near Dunedin, that a development with any considerable output was launched. This scheme was begun by a private company, and taken over and completed by the Dunedin City Council. Its present capacity is 11,000 k.w., and plans have been drawn up for extension to 20,000 k.w.

Persistent demands were made for some years that the Government should develop the power sources of the Dominion for the benefit of the people generally, and in 1911 a start was made with the Lake Coleridge scheme, for the supply of Christchurch city and Canterbury province. The initial development was completed in 1915 with a capacity of 4500 k.w.; this was soon afterwards increased to 12,000 k.w., and in 1926 the installation of two additional generators, each of 7500 k.w. capacity, was completed, thus bringing the normal output of the power station up to 27,000 k.w. Provision has been made for the installation of another 7500 k.w. unit when the growth of the power demand calls for this additional supply, which represents the ultimate scope of the development.

The Lake Coleridge scheme supplies electricity to the city of Christchurch, eleven country and borough councils, and four electric power boards. The total connected load at March 31, 1926, was 90,926 k.w., and the total number of consumers is about 38,000. Among the direct wholesale consumers are freezing works, flour mills, tramway board, tanneries, soap works, steel works, woollen mills, and various other industrial users.

The two other principal developments in the South Island are Waipori and Monowai. The former scheme supplies Dunedin city and the Otago Power Board, the total number of consumers being about 19,000, among a population of some 138,000. The Monowai hydro-electric plant supplies the Southland Power Board and the boroughs of Bluff and Gore, the total number of consumers being somewhat over 6000. In addition to the above a number of local bodies operate small plants of their own.

The Government's scheme for electric supply in the North Island comprises three main hydro-stations, namely, Arapuni (Auckland province), Waikaremoana (Hawke's Bay province), and Mangahao (Wellington province). The two former developments are now under construction, while the Mangahao system has been in operation for somewhat over two years. Electric supply is given to the city of Wellington; also to eight power boards and two boroughs. The power station has an output capacity of 24,000 k.w., and the connected load and maximum demand in March, 1926, were 44,850 k.w. and 13,960 k.w. respectively.

The Arapuni development is being carried out in the Arapuni Gorge, Waikato River, the site being 97 miles from Auckland city. Three generators, each of 15,000 k.w. capacity, are being installed as an initial development, the ultimate capacity of this water-power source being 120,000 k.w.

A few miles further down the river the Horahora plant is in operation, with an output of 12,875 k.w.

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This station supplies power to the Waihi Gold Mining Co., Waihi Grand Junction Gold Co., various dairy factories, and several rural power boards. Horahora has lately been linked up with the Auckland Power Board's steam-electric station in Auckland city by a 50,000 volt. transmission line.

The complete scheme of electrical distribution in the North Island, and in the South Island as well, calls for inter-connecting transmission lines between all the main stations, the power being transmitted at 110,000 volts. Mangahao station is already operating on this voltage.

The Waikaremoana power station, at present under construction, will be one of a system of three stations operated by water from Lake Waikaremoana, about 60 miles from Napier. Two generators, each of 16,000 k.w. capacity, are being installed in the first station, provision being made for putting in another unit of the same capacity when the growth of loads demands the additional supply.

In the early days of electrical supply in New Zealand, the current was used almost exclusively for lighting purposes. With the advent of electric motors and the application of electricity for heating purposes, the power and heating load increased until at the present time the energy used for lighting is small compared with that used for other purposes.

The benefit of electric drive in factories and workshops has, to a large extent, been taken advantage of, and the use of electricity for industrial heating and domestic heating and cooking is rapidly increasing. The use of electric ranges and water heaters during the past few years tends to confirm the opinion that the use of electricity for domestic purposes will soon exceed the demand for industrial and commercial uses.

Referring to the financial aspect of electrical supply, it may be mentioned that the combined income of New Zealand Power Boards has reached the million mark. Up to March, 1926, the boards had spent in construction £8,750,000, carrying an annual interest bill of a little over £500,000. During the year there was paid for labour, casual, permanent and clerical, close on £500,000, and at the above date there were 1357 persons employed by the boards.

The expansion of electric service in the Dominion is on a sound basis, and the immense potential water powers are being harnessed for the use of the population and the development and progress of the country.

The Dignity of Business.

(Contributed by 74/205.)

Business has been defined as any useful, intelligent activity, or human service. The term "busyness" was first used, it is believed, in the twelfth century. In those days it was an epithet of contempt, used by men who took pride in the fact that they did no service of value to the community.

Nowadays we do not regard with respect the man who is simply an idler. The service of the human race has become a thing of dignity. The efficienct performer of even menial tasks is entitled to the regard of his fellowmen. It has been said that any idiot can sit down and be waited upon, but it needs skill and intelligence to serve.

The modern world requires that every man shall in some way contribute to the common need. Although there are still many who are content to live by the use of their fellows instead of by serving, the time will come when society will eliminate them. To quote again: "The way to abolish a serving class is for all to join it."

Ancient Rome did not fall into decay through lack of what they termed wealth. There was plenty of gold but not enough service. It was not until the year 1776 that Adam Smith, in his "Wealth of Nations," showed that gold is not wealth; that all the precious metal in existence is useless without the labour and skill to produce the necessities of life.

Business embraces all the activities which are required to supply mankind, from the tilling of the soil to the conveyance and distribution of the products to the individual. Any person, therefore, engaged in such activities, is in the service of the race, and is in some measure a producer. The world acclaims those who have shown it how to serve the people with greater economy or efficiency. It deems them worthy of gratitude and reward.

But of itself service is not necessarily good business. More and more we are requiring that business shall be honestly done. It is not so long since business was considered to be "good" which brought benefit only to the vendor. In this category might be placed the merchant who thought it clever to "unload" a worthless article on to the unsuspecting buyer. "Caveat emptor" was the common phrase. To our credit it may be said that such practices to-day would lead to ruin of the merchant. He must describe his wares with truth, and even point out defects, if any. Examples to the contrary exist: but the dishonest dealer is now despised. If we hear a man boasting of such "shrewdness" we keep our hands in our pockets when he is near.

Most great organisations both here and abroad will not tolerate unscrupulous selling. The salesman who misdescribes, or conceals any fact to get business, meets with scant consideration. The literature of a large manufacturer of motor trucks gives precise instructions to agents and travellers throughout the world on the strict honesty they require in every particular. Before selling to any client the agent is to satisfy himself that the vehicle is suited to the buyer's needs. If my class of haulage can be more economically done by horses, the agent is to honestly demonstrate the fact, and cheerfully decline the sale. Should the company's inspector find a dissatisfied user who has been misled into the purchase, the penalty for the salesman is dismissal.

This is real service, and only real service pays in the end. It makes business a pleasurable thing, of mutual advantage. In the case of another public utility, the suppliers of a well-known office appliance will not make a contract of sale until the client has used it with success for twelve months. The reason given for this is that some men are temperamentally unfitted to make efficient use of this particular article, although they are attracted by its evident value. The consequence is that every buyer becomes a friend, and a large percentage of sales is effected without a canvass, from personal recommendations.

When I receive this kind of service from a store, I go there for every need it can supply. The saving of a few pence elsewhere does not interest me, for I feel that the sum I pay for an article is faithfully based upon the cost of handling. If an item here and there be a little less in another place, I will find it is balanced by an advantage on a later purchase. The merchant has discovered that if he consistenly demands an exorbitant advance on his wares, the trade passes to his more reasonable competitor. On the other hand, the dealer who constantly undersells is eliminated by his own act.

The business motto of to-day is honest service with mutual benefit in every transaction.

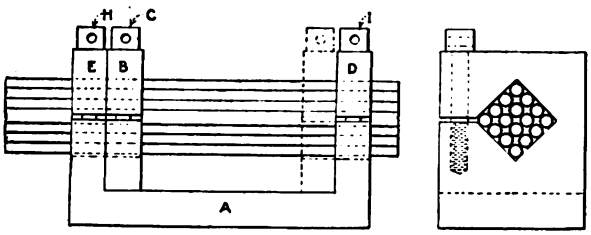
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Workshop Hints

(From Various Exchanges)

Fixture for Holding Tubes.

Very often when cutting a number of tubes into short lengths, a suitable means of holding a number of tubes is necessary. The fixture illustrated hereunder may help in solving this problem.



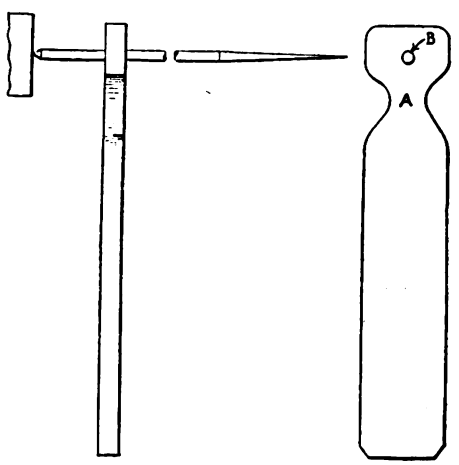
The fixture consists of a V-shaped base A, and the sliding piece B, both of which have diagonal square holes in them of a size to hold a definite number of same size tubes. Both parts are slotted on one side, and provided with binding screws, as shown.

The tubes are passed through the square holes, protruding to the line of travel of the saw, and the sliding part B moved against the leg E. By tightening the screw C, and moving B against D, as indicated, the tubes will be moved forward a distance equal to the distance between E and D, which should be equal to or a factor of the desired length.

After tightening H and I, the cutting can proceed. The procedure can be continued until the tubes have all been cut to length. The fixture can be used with either hand or power saws.

Inexpensive, Reliable Wiggler.

An inexpensive but surprisingly reliable wiggler, capable of giving service for years, is shown below.



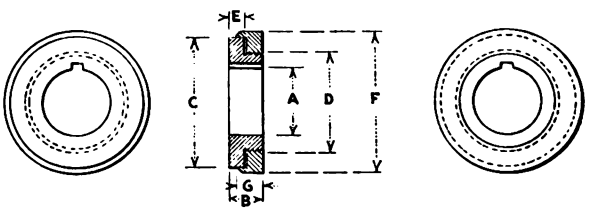
The holder is made from a piece of leather belting about ⅜ in. thick, cut with a neck to give flexibility (as shown at A). The hole B is a tight, friction fit for the wiggler, and holds it securely in position.

Since the end that holds the wiggler gives to any slight pressure, the tool can wiggle without any appreciable amount of friction.

Adjustable Spacing Collars for Milling Cutters.

The spacing collars shown in the illustration are made of machine steel, threaded and screwed together. The inner collar is graduated in 50 equal divisions on its outer surface, and the bevelled edge of the outer collar is provided with a zero line, by which the graduations can be read.

Each division, as it is brought opposite the zero line, indicates a change of thickness of .0001 in. However, since the graduations are from ¼ to ½ in. apart, dependent on the size of collars, it is a very easy matter to adjust the thickness to a much finer dimension by estimating the position of the graduations in relation to the zero line.



No.	A Size	B Thick	KEYWAY Width	KEYWAY Depth	C	D	E	F	G
1	3/4	3/8	1/8	1/16	1 1/2	1 1/8	3/16	1 5/8	5/16
2	7/8	3/8	1/8	1/16	1 1/2	1 3/16	3/16	1 5/8	5/16
3	1	7/16	5/32	1/16	1 1/8	1 7/16	7/32	2	3/8
4	1 1/4	1/2	3/16	3/32	2 1/8	1 9/16	1/4	2 1/4	7/16
5	1 1/2	9/16	1/4	1/8	2 3/8	1 11/16	9/32	2 1/2	1/2
6	1 3/4	5/8	1/4	5/32	2 3/8	2 3/16	5/16	2 3/4	9/16
7	2	3/4	5/16	3/16	3 1/4	2 7/16	3/8	3	9/16
8	2 1/4	3/4	3/8	3/16	3 1/4	2 3/4	3/8	3 7/16	9/16
9	2 1/2	13/16	3/8	3/16	3 1/2	3	13/32	3 11/16	5/8
10	3	13/16	7/16	5/16	4	3 1/2	13/32	4 3/16	5/8

The table gives data for making ten sizes of collars. While these collars provide means for very accurate cutter spacing, their manufacturing cost is low. Their use eliminates the necessity of making paper collars to space the regular collars.

Belt Dressings.

There are two classes of belt dressings, the lubricating and the anti-slip. The former renews the internal lubricant in the belt, while the latter temporarily gives the belt a better grip on the pulley and is usually harmful.

Of the former class, a paste dressing is more convenient. A very satisfactory paste can be made by mixing equal parts of beef tallow and cod-liver oil while warm. This mixture cools to a paste, and can be applied with a swab. If, through long standing, it separates, it can be remixed.

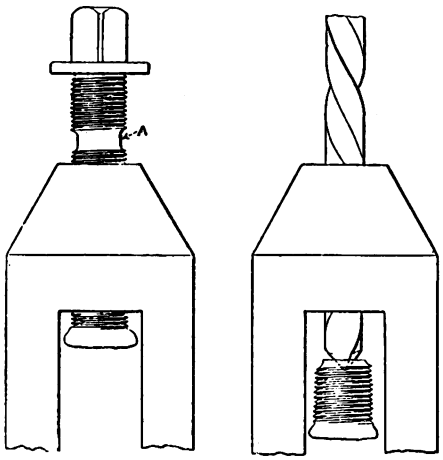
Neatsfoot oil is a good dressing if used with care; too much oil makes the belt soggy. A somewhat better medium to employ is castor oil. A properly dressed belt is supple, but not greasy.

Mineral oils will slowly rot a belt, and it should be removed before a dressing is applied. French chalk can be used for this purpose if the belt is not too oily. The chalk should be spread on the surface of the belt and left to stand until all the oil is absorbed; it is then scraped off. Petrol is another good remover, being used on a rag, or, in extreme cases the belt can be immersed in the petrol.

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Removing a Battered Tool-Post Screw.

A battered tool-post screw often presents a problem to the mechanic. A good method of dealing with such is as shown.

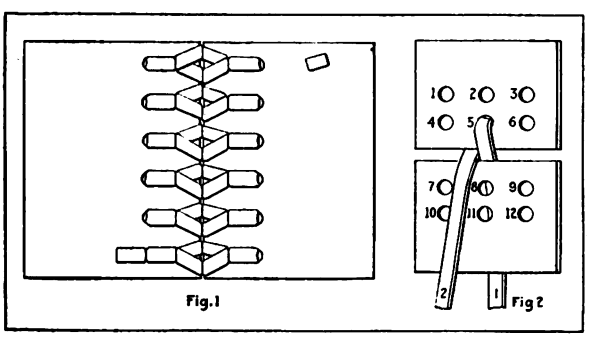


Back the screw out of the tool-post as far as possible without the screw binding in the tapped hole, then grind a groove around the screw as close to the tool-post as possible, as indicated by A. This exposes the soft metal, and the outer end can be cut off.

Then counter-punch the exposed end of the screw, and put the tool-post in a drill-press, holding it with the vyce. Using a drill somewhat smaller than the tapped hole, and with the machine running slowly, bring the drill down very quickly and jam it on to the butt of the screw. The drill bites into the metal and causes it, by revolving, to screw out of the post into the slot, whence it is easily removed.

Hinge Lacing on Belts.

The hinge method of belt lacing, when properly done, is very effective, and produces a pliable joint. The finished lacing is shown in Fig. 1, and both sides are alike.



The holes should be punched as shown in Fig. 2, and spaced about ¾ in. from centre to centre. The holes should not be less than ½ in. from the end and edges of the belt. Begin in the centre when the spacing of the holes is odd, or in either one of the two centre holes when the spacing is even.

Pass lace end 1 up through hole 8, down between the ends of the belt, up through 5, down through 2, up through 5, and down between the ends. Pass lace end 2 down through 8, up through 11, down through 8, up between ends, down through 4, up between ends, down through 7, up between ends, down through 4, up through 1, down through 4, up between ends, down through 7, up through 10, down through 7, up between ends, down through 4, and up through 1.

Then fasten the end in the usual manner through a small slit back of No. 1 hole.

Next proceed to finish the other side by running lace end 1 up through 9, down between ends, up through 6, down between ends, up through 9, down through 12, up through 9, down between ends, up through 6, down through 3, up through 6, down between ends, up through 9, down through 12, and fasten at back of No. 12 hole.

Babbitting Bearings.

The following is a method of babbitting that has some advantages over the usual practice.

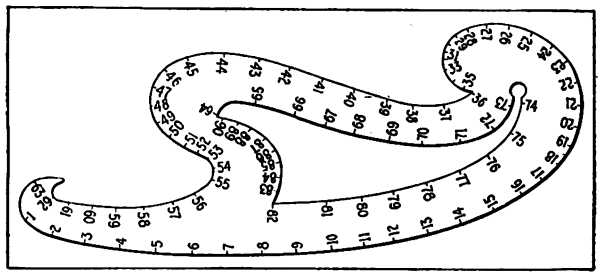
Instead of using wet clay for stopping off, the use of a mixture of asbestos and a high-flash cylinder oil is applied.

Practically no moisture being present, as in the case of wet clay, there is no tendency for the babbitt to "blow" and become dangerous. It also insures a smooth, sound bearing.

The flash-point of the oil should be from 600 to 800 deg. Fahr., which is sufficiently higher than the pouring temperature of the babbitt to prevent it from being burned away. The asbestos is much cleaner than clay, and can be used repeatedly.

Aid for Inking In.

Draughtsmen frequently find difficulty in matching a curve obtained by the French curve whilst inking in a drawing, often causing an annoying delay on the job.



A good idea to prevent this was recently announced. By marking reference lines around the drawing edges of the curve, and numbering them, as shown in the illustration, the work can be greatly facilitated.

If, when drawing the original curve, the reference numbers are noted and marked in pencil on the drawing, it is an easy matter to relocate the curve in the same position when inking in.

Success Depends on Persistence.

House-to-house salesmen have to be persistent pedestrians. They must spend more time afoot than in actual selling. Some recent statistics that have been compiled regarding door-to-door salesmen of electric appliances disclosed that they actually worked only one hour forty-five minutes a day. That means that they were actually in the presence of their prospects for only that total of time. It has been found further that a man never fails who gives four hours a day of persistent effort to his job.

When one of these canvassers calls, he is invariably unwelcome. If he gets inside the door, he will generally make a sale. That is where the real salesmanship of the house-to-house salesman stands out so remarkably. The average woman is pleased to find out that her patronage is so much desired. Therefore she often buys, or rather is sold, articles for which she may have no real need.

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The Road to Success

(Contributed by 57/205).

No young man who lacks the ambition to rise is likely to attain success. He may drift along, if he wishes, content with what he calls a "good job," but without the will to succeed he will surely find himself condemned to a position where nothing but routine work is required. And the rewards in the business world are not for the routine worker. They go to the producer, the organiser, the initiator, the salesman.

I know a dozen men who, at the age of thirty-five or more, are mere automatons. They do the tasks of the youth of eighteen, and the management cannot afford to pay them highly. Yet it would be untrue to say some of these men had not the capacity for something better. They only lacked the necessary urge to fit themselves for it.

A visitor to an exhibition in Paris saw a London policeman stationed at the entrance for the convenience of English-speaking people. He asked this officer why he had been selected for the post from the entire London force. The reply was that he had learned the French language some time before in the hope that it would be useful in his duties. In other words, he had made himself fit for a better job. The reward was six months in Paris at increased pay, and later he was appointed interpreter at Bow-street court.

The "automatons" referred to simply did their job and no more. They doubtless did it correctly, but were careful not to exceed it. It might be said they were the victims of habit. For habit may be a heavy drag upon us. It is so easy to follow the routine. Daily life may become monotonous by the mere fact of doing the same thing for years, until we have worn a groove so deep that there's no escape from it. In a New Zealand Government department I spoke to a man of over seventy who was about to be retired. For nearly fifty years he had one set task, and one only. He was required to take a hand-written copy of every "deed of gift" which came in for registration. These he wrote word for word with the original, into a huge book provided for the purpose. Taking me into the strong room he pointed to a row of these books, some forty-five in number. "I filled all these volumes," he said. Taking down the first of the series, he showed with pride the neatness and accuracy of his writing. "I was twenty-three then, and never mis-spelled a word." The hand was firm and round. Yet as I glanced through one book after another, all through the fifty years, the style of his writing became less vigorous and sure. Towards the last it was shaky and less legible. Blotches and erasures were frequent. For half a century he had copied out legal documents, all of the same tenor, all in the same dry phraseology. He could see now, he explained, that with an effort he might easily have been head of the department. But habit had him in its grasp. It was comparatively easy work, and he only awoke to his position when it was too late. The advent of typewritten deeds finally rendered him obsolete.

It is the common complaint of the junior that his firm are at fault when he fails to be "pushed on" as he would like. They are too mean, he will exclaim, they "hate to pay decent wages." A hundred such excuses are made to explain their lack of success. But with a most careful regard for the truth I am bound to say that has not been my experience. Examples without end can be recalled of employers giving speedy advancement to the man who threw himself into his job with enthusiasm, and earned a better position. And the remarkable fact is that the man so advanced is usually astonished to find his work had been noticed. He was too busy at his job to think of the possible reward. Perhaps those very qualities of industry go with a modest disposition. One such young man declared when his directors placed him in an unexpected position of trust and responsibility, "I do not deserve the praise you give me; I only did to the best of my ability what I saw to be done." Yet how often do we hear from the lackadaisical young fellow the grumbling remark: "I've been here longer than Jones; I should have got that job."

To those who really desire to succeed it might almost be said there is nothing to stop them. The average employee, sad to say, gives the man of enthusiasm and intelligence but little to "beat." It would be safe to say that for every employer who fails to properly reward his staff there are ninety-nine who give the deserving quick promotion.

Visiting a large export house in Sydney, I was shown over the packing house by a young man who surprised me by the knowledge he displayed of all the details of the firm's operations. He explained how economies had been effected in one branch after another, from the saving of nails and timber to the installation of a gravitation system. When I questioned him as to the source of these improvements he changed the subject, and asked to be excused for a moment while he countersigned a cheque. In conversation later on with the senior director of the concern, he gave me the young man's history.

Four years earlier he had asked for a job, and had been taken on as a temporary hand during a rush period. His first task was the humble one of nailing lids, and within a week he had demonstrated that with trifling alterations in the method adopted the packages could be made just as secure with a saving of 25 per cent. in nails and less labour. He studied every operation, however small, until in six months he was looked to as the expert in that department. The others asked him for advice, and responsibility gradually drifted his way. In a year he was made foreman of the packing house. Yet he seemed to bring nothing to the job but plain common-sense and industry. Later he handed into the office a suggestion to convey the whole of the products from the upper floors to the door of the despatch room by gravity, explaining that it was merely based on what he had read of overseas shipping concerns. The idea was not new, but nevertheless he had been the one to suggest it, and it was accepted.

In three years he had become the manager of the entire packing and shipping end of the business, and shortly afterwards was made a director of the company, with a salary of £1000 a year. He had so interested himself in the work of his firm that from the first month of his employment the habit grew of giving him the extra jobs to attend to, until he was looked to as a leader. When I became better acquainted with this man I asked him leading questions as to his sudden rise. His reply was significant. "All I really did," he said, "was to take on the odd jobs that the other fellows dodged." In that reply lies his secret. He was not brilliant. But he studied his job; he refused no responsibilities; he fitted himself for management, and he got it.

It would be idle to say that everyone can find the same set of circumstances as these, or just the same possibilities. But one could almost guarantee that similar qualities of willingness and earnest endeavour would win a measure of appreciation and reward anywhere.

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Is Tin Coating on Food Cans Necesssary?

There is no scientific justification for tinplate, says Mr. E. F. Kohman of the Research Laboratory of the National Canners' Association of America, in a recent address before that body. Continuing, he says that to understand the significance of this statement one must have in mind a certain relationship between the metals.

Any arrangement of the metals in an electrochemical series holds only strictly for the particular mediums in which they are measured. For example, if the necessary electric measurements are made in cherry juice to arrange the metals in an electrochemical series, the relative position of the metals might be different than if the same measurements are made in tomato or pumpkin juice.

It should be understood that any food product is more or less corrosive toward tin and iron. If two metals are in contact in a corrosive medium, the corrosion of the more resistant is held down at the expense of the least resistant, or vice versa. The more resistant metal actually intensifies the corrosion of the least resistant.

In a tin can we have a large area of tin and a relatively small area of iron exposed to a corrosive medium. Towards some foods the tin is the more resistant. Theoretically in these products the tin actually increases the corrosion of the iron where it is exposed.

Since the area of iron exposed is so small, the actual amounts of iron which are dissolved and thus taken up by the contents of the can, are usually of no great consequence. But with some products the action is so rapid that the can is soon eaten through and we have a perforation as with fruits.

If there were a larger area of iron exposed the total action would be greater, but the action per unit area would be less. Since it only takes a microscopic hole to make a perforated can, it so happens that the more efficiently or completely the iron is coated, provided it is not 100 per cent. coated (the concensus of opinion is that the coating in every can, both tin and enamel, is imperfect), the deeper will be the action at the exposed point. With perforating fruits this means the earlier will perforations occur.

In some food products the position of tin and iron in the electro-chemical series is reversed, the tin being the more easily attacked. In such cases the iron theoretically has little effect in increasing the corrosion of the tin, however, because of the small area exposed as compared with the tin. But with such products the question suggests itself, why coat iron with a metal less resistant than the iron itself?

In either event, whether dealing with a food toward which the tin is most resistant, in which case corrosion of the iron at the exposed points is intensified, or whether dealing with a food toward which the can is least resistant, in which there seems little justification for the tin, an ideal coating is far from an accomplished fact by use of tin.

As a preliminary experiment, tinless cans were made for beetroot, pumpkin and corn (maize). To make these cans ordinary steel sheets were used. To make unnecessary every other metal, as well as the tin, the side seams were welded electrically. The ends were crimped on as in ordinary tin cans.

The corn cans were coated with the regular corn enamel, while the cans for beet and pumpkin were coated with the enamels used commercially for these products. Both inside and outside were simultaneously enamelled. The ends were enamelled by spraying on the inside only.

No attempt was made to have a finished can as regards the outside; the purpose was to determine if a tinless can, coated with the ordinary enamels, would satisfactorily prevent the contents from attacking the can. One material advantage in these tinless and solderless cans is the wide range of temperature at which the enamel may be baked, the melting point of tin and solder setting a decided limitation on the ordinary tin can.

Subsequently these experimental cans were used for the canning of maize, pumpkins and beets, and transported over long distances. The canning was done in the regular commercial way by the canners to whom they were shipped.

From time to time iron determinations have been made on the contents of these cans. The contents of tinless cans are naturally devoid of tin and the iron taken up, to date, is not excessive. The corn enamel used has apparently prevented discolouration in the tinless cans as efficiently as in tin cans. From the exhibit it is evident that the contents of these cans are entirely normal.

No more than mention need be made here of the economies that would result, both in the actual cost of tin as well as in the operation of tinning, if tinless cans should become practicable. As already intimated, tinless cans offered new possibilities in coatings by virtue of the absence of a low melting metal.

Furthermore, the so-called stainless and rustless steels are rapidly assuming importance in many directions. Mr. Kohman has recently been able to secure two alloys of this type in sheet form suitable for can making purposes and has had them made into cans, which he expects to try out first for certain fruits which give most trouble from perforations. These newer alloys offer an entirely unexplored field.

There is no doubt, says Mr. Kohman that containers made of such materials will find immediate, though limited, application whenever their manufacture has been worked out on a practical basis.

Building.

(William Ludlum in an American Paper.)

Build big! Whatever task you face—
Cut not the pattern small,
But plot and plan your edifice
On spreading lines and tall;
Neglect no little thing that may
Add to its growing might,
But build with every stick and stone
That may increase its height—
Build big!

Build big! No puny building dare
To think will do for you,
But build with boldness; as you plan—
Success becomes your due.
Unchecked by any limit—build!
Uncramped by line or space,
Build—outward, onward, upward till
You have attained your place—
Build big!

Build big! Prepare in every way
To make your building rise
Until it towers over all,
Its pinnacle—the skies.
Build big! From corner stone to peak
Let not your effort rest
Until complete it stands, with you,
The builder, on its crest—
Build big!

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Australian Manufacturing Developments

Fire-Resisting Safes.

In 1923, the Texas Safe Works, whose proprietor is Mr. P. J. Wheeler, commenced building fire and burglar resisting safes and strong-room doors, at 81 Parramatta-road, Annandale, Sydney. Safes are made in twelve sizes, from 20 to 60 in., and are provided with a safety device for which Mr. Wheeler holds a Commonwealth patent. The standard finish of the safes is black with green panel (but the finish is subject to choice), and each is provided with door-handle, escutcheon and name plate of brass. Recently more room was found at No. 49 in the same thoroughfare and municipality. On two floors of the new premises a sufficiency of plant is installed, allowing space for expansion when required.

Welding of all sorts is undertaken at the works.

Various Foundry Products.

In 1915 Mr. C. S. Marcer started in the foundry business at 382 Parramatta-road, Petersham, Sydney, and in 1919 moved to premises of his own at 364 Young-street, Annandale. Since early in 1926, his son, Mr. S. G. Marcer, has been the sole proprietor, but the business is carried on under the old firm name.

On an allotment 60 x 100 ft., a capacious factory building covers about half that area, being fitted with the usual appliances and machines for the work undertaken.

Mr. Marcer's products are largely shoe and boot lasts in seven styles, plumber's ironware such as fire grates, footpath and sewer boxes, and doors for laundry coppers. Billy-cart wheels, standards for theatre and garden seats, and weights of cast iron for weighing machines, are also prominent lines. In addition to these all kinds of light castings in iron are produced.

Storekeepers are supplied with the goods enumerated.

Additions and Improvements.

The history of Metters Ltd. records uninterrupted progress and expansion of the central works at Mitchell-road, Alexandria, Sydney, and as occasion warrants, establishment of branches in other States. In addition to about fifteen acres covered with factory buildings, and thoroughly utilised at the location mentioned, an additional area of fifty-two acres has been secured as factory site.

A large number of hands is employed by the firm, who report periodical plant additions in every department as expanding trade demands. Since the recent destruction by fire of the firm's city premises in Elizabeth-street, the corner building of Wentworth-avenue and Goulburn-street temporarily houses showrooms and offices.

Keen competition from abroad notwithstanding, the aluminium and enamelled holloware section prospers, and new lines are steadily added. The stove section sees incessant addition of improvements and new styles in gas and fuel stoves. This applies equally to the maufacture of porcelain enamelled baths, basins, sinks, "Kooka" kitchen tables, and such ware. For country use where tilers are not available, a special sheet iron tiled pattern bath surround has been added in the bath section.

An electrical department was started at the new year, and is already turning out electric stoves, gravity and pressure types of bath heaters, urns, toasters and grillers, radiators and household electric storage systems. With the service that the Sydney City Council is offering, the demand at Canberra, and increasing demand throughout country towns, this department is destined to experience rapid expansion.

From the soil pipe section a full range of soil and rainwater cast iron pipes and fittings are greatly in demand for large modern buildings. As a refinement these where required can be supplied with all internal parts glass enamelled.

An important department covers windmills, pumps, tanks, troughing and irrigation requirements.

Equipped with Metters' steel wind motor come such specials in windmills as the "Nuoil" which is a new self-contained automatically oiled wind motor driven mill; and the "Little Toff." All windmills are on towers to suit all purposes, and duplicate parts are available. Pumping jacks are in several kinds, also bulldozer power working head, ratchet and geared low down pumps, and other hand pumps.

Mr. H. L. Spring is the governing director of the company, and Mr. R. A. Spring the general manager.

Motor Accessories.

The making of motor accessories, a large and tempting field, was entered by Storey Bros. Ltd., of Crown-street, Glebe, Sydney, some six years ago.

Early in 1921 a beginning was made at 49 Clarence-street, with cast and spun aluminium cooking utensils as an auxiliary line, but the making of cooking utensils was eventually discontinued. In 1922 a factory was opened in Saunders-lane, Pyrmont, where 6,000 square feet of space was utilized. In June a year later the present premises in Glebe with 14,000 square feet of floor space were equipped solely for the making of motor accessories. So great is the demand for the firm's bumper bars that two shifts are constantly employed making these. In the press department seventeen Heine power presses are in operation, one press doing two different kinds of pressing—flat and edge. The departments are: machine room, press section, spring making, plating, "Duco" spraying, polishing, and the assembling section.

A special line of manufacture recently begun is the "Storey" shock absorber with friction block of Australian tallow wood which is self-lubricating, and extra heavy coil spring and heavier strap to suit Australian roads.

The brothers Tasman and John Storey are the directors of the company, and to-day there are branches at 103 Little Collins-street, Melbourne; 114 Hindmarsh-square, Adelaide; and Perry House, Elizabeth-street, Brisbane.

Bright Bolts and Nuts.

Busily reaping the reward attainable in a country where manufacturing development is gaining impetus, are Duly & Hansford Ltd., of Warren and Carrington roads, near Tempe railway station Sydney.

Six years ago the three gentlemen who still control operations, assisted by a boy, began making bright bolts and nuts in a very modest way at Verdun-street, Kogarah. Success attended the venture so gratifyingly that the firm became a company, and last Christmas took possession of a large modern factory erected at the address mentioned.

On about four acres of land secured for the continued expansion anticipated, a factory of brick having some 13,000 sq. ft. of floor space and with

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effectively ridge-ventilated galvanized-iron roof, contains the best nut and bolt producing machinery procurable in America. Here bright bolts and nuts are produced in increasing quantity. Additional products are motor parts, the works being capable of making any and everything in turned or screwed parts from the drawn bars in steel or brass.

The store is effectively equipped with steel shelving. There are various auxiliary buildings and a capacious well-appointed office building, also of brick, A number of skilled workmen are employed and the plant is working to its utmost capacity.

Tradesmen's Tools.

A courageous attempt to establish in Australia the manufacture of tradesmen's hand tools on a rather ambitious scale is being rewarded with a measure of success. Located picturesquely almost on the brink of a great gully, in Kendall-street, Woollahra, Sydney, are the tool works of Mr. W. H. Plumb. There, eleven years ago, in a galvanized-iron shed some 30 ft. square, with one assistant, Mr. Plumb pioneered tool making in Australia. His plant consisted of a smithy, bellows and one anvil. Now, the factory measures 135 ft. x 80 ft., covering the entire allotment, and employs thirty-seven hands.

The three departments—forging, engineering and structural—are replete with machine tools including some of the latest type procurable, various sizes in steam hammers, drop hammer, machine drills, and an electric grinding machine run by individual motor. The store racks are amply filled with bar and other iron and steel.

Although Mr. Plumb's activities include general and structural engineering, tools form his main line of manufacture. Registered under the "Fern" brand, his productions include spalling and napping hammers and quarry mauls, picks and mattocks; all kinds of blacksmiths', farriers', bricklayers', masons', plumbers', tinsmiths', quarrymen's, and other tools; marlin spikes, barrow wheels, navvy shovels with T handles, and round and square-mouthed shovels with D or long handles.

Special are the "Griffin" patent shovels which are separately tested before leaving the factory and are fully guaranteed. A claw "bitch" pick has socketted points so that instead of taking a 6 or 7-lb. pick to be re-dressed, the "pups" (or points) of the "bitch" are removed and taken to the repair shop. By using alternative points the one pick serves for six different purposes, including masons' claw bits for dressing free-stone.

Other productions are steel cantilever awnings, girders and other builder's structural steel and iron work.

Australian-made Sparking Plugs.

For many years Australia has been able to produce internal combustion engines comparing favourably with similar productions from other parts of the world. In agricultural engines, for use under Australian conditions, many would even class the local machine as superior. But although many of these have been almost Australian, it is only during the past few years that it has been possible to boast that they are wholly so, the last remaining detail to be added being the spark plug.

Although but a small part of the equipment, the plug is a vital part. Nothing but absolute perfection can be tolerated in the system of ignition. For this reason the question of the manufacture of this article must be a serious one to undertake. The motorist for instance, is a wary fellow. He has the choice of a hundred different brands of plug, each with a fine record of reliability. And when an engine is required to "turn over" hour after hour for perhaps two hundred miles in a day on occasion, the user cannot afford to take the slightest risk with his equipment. The occasional "missing" of a single cylinder in his four or six causes loss of power and efficiency, and gives him anxiety. The driver instinctively approaches a new or unknown brand with caution, if not suspicion.

Australian Spark Plugs Pty. Ltd. commenced a few years ago to experiment with this industry. It was necessary to design a plug which must be simple, with the least possible number of parts, because the production in mass is essential when price has to be considered. This company have not only succeeded in demonstrating to the community that their B.E.S. plug is reliable in use and construction, but have also organized production to that point when they are able to make sufficient to supply the whole of the needs of the Commonwealth, and also to provide for speedy extension of the output whenever it becomes necessary. B.E.S. plugs are some 25 per cent. lower in cost than the imported article. The finish is nowise inferior to any other. Parts are interchangeable, the core is of one piece, making the taking apart and cleaning an easy matter. The central electrode (positive) is driven into the spindle, while the negative is driven into the base of the plug body. The single-point pattern is used in all classes of plugs made by the company. Electrodes are of the highest quality nickel wire, carefully tested.



Considerable difficulty was experienced in finding the correct porcelain core, capable of withstanding the strain of compression in the cylinder. The problem of making an absolutely perfect fitting core was also serious. After much experiment and great expense, the company secured a supply of a French porcelain which has stood up to every test. Certificates are in the hands of the concern from such users as racing motorists, who testify to the complete satisfaction given by this Australian plug under the severest conditions.

In another type of plug, specially intended for motor-cycles and high-speed engines, tractors, and crude oil engines, an insulating core of mica is used instead of the porcelain. Of waterproof construction, the mica spark plug is made in all sizes. It is sufficient recommendation to say that this type has been approved, and is used by the Fire Brigades Board, the G.P.O., and other Government departments; and also by various prominent manufacturers of engines.

The company originally carried on their operations in several different factories, each doing a part of the work. Now the whole process of manufacture is more efficiently accomplished in a new factory at 562 Spencer-street, Melbourne. Here are installed automatic machines modified to suit the special conditions required. The shells are produced from the rough steel, the machines automatically measuring and drilling the body in one set of operations. Thousands are being turned out weekly, with the possibility of almost unlimited increase in production when needed. In the brasswork again mass methods are employed. The construction and testing from point to point is carried on progressively,

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the result being that each one of the quantities produced may be guaranteed of perfect accuracy and gas-tight.

For every make of car in general use throughout Australia the correct class of plug is now produced. The metric plug for English and Continental cars is also suited to some of the higher class Americans. All spares, including central electrodes and porcelain cores, are constantly kept, and accidental breakages may be repaired by the replacement of the necessary item. Motor supply houses carry stocks of B.E.S. plugs and parts.

Lighting and Other Glassware.

Forty years ago the manufacture of certain lines of glassware was commenced at Langford-street, North Melbourne by Dott & Co. On the same site but in much enlarged premises, the business is continued by the registered company Dott & Co. Pty. Ltd. During recent years the factory has been practically rebuilt, and recent developments in machinery and methods have been introduced.

Although the glass blower still holds sway, his work has been considerably modified and improved by scientific appliances. Such devices as cutting machines of various patterns, and oil furnaces under accurate control as to temperature and feed, have combined to cheapen production and improve the quality and finish of the output. The modern oil furnace alone, with its capabilities of adjustment, and the precision of its electrical recording of temperature, has come to the aid of the glass maker no less than the iron and steel manufacturer, while the latest processes of annealing have meant much for methods and results.

Furnaces are required which must attain a constant heat, often up to 2,500deg. Fahr., and this necessitates the feeding and maintenance of these appliances day and night throughout the year. In no other way could steady production be carried on.

The first step in manufacture is the mixture of sand and the necessary chemicals. Sand is, of course, one of the principal ingredients. This is obtained from Carrum, which yields an excellent grade for the purpose, free from iron and other impurities, and with a high percentage of silica. These qualities, together with the finest class of soda ash obtainable, are essential to the production of glass of high grade. The finished article must be of bright colour, with a clear transparency, and capable of perfect annealing, so that glassware such as lamp chimneys may be able to withstand extremes of heat and cold.

A convincing illustration of the latter quality was given to the writer. A finished lamp glass, selected at random, was placed in a furnace which at the moment registered a temperature of 920 deg. Fahr. After remaining in this heat for some ten seconds, it was removed instantly into the open air. Although a keen south wind was blowing, it cooled without the least sign of fracture or change of colour.

The materials having been mixed in a dry state, a certain percentage of "cullett" is added, this being the trade name for fragments of manufactured glass, and the whole is then placed in the oil furnace which is heated up to 2,500 deg. Fahr. Two classes of furnace are used; the pot furnace for high grade crystal glass, and the tank type for ordinary flints. When the proper heat has been reached the operator inserts his pipe, and withdraws sufficient of the molten substance for the article required. A smaller furnace known as the "glory hole," is used by the blower from time to time to maintain the temperature of the work in hand.

The ordinary annealing process consists of a gradual cooling from high degrees of heat. Another method af annealing now used in the factory for certain articles is known as the Lehr system, which is considered the "last word" in this department. A special kiln is provided, into which the glass is placed at a heat of 1000 deg. Fahr., or practically melting point. A series of moving trays carries the articles along slowly throughout the process, until they are finally delivered cold at the other end of the apparatus.

Lamp chimneys are usually made in "doubles," the blower, after preparing the molten glass, placing them in a mould. An ingenious machine separates the twin glasses by rotation in a flame, this method ensuring the smooth edges which are so familiar to the user. Glasses for hurricane lamps are similarly produced. Other articles are ground on carborundum wheels after cutting.

The range of glassware turned out is large and varied. It includes such diverse types as globes of great dimensions for the railways, and the St. Kilda municipality; confectionery jars, huge glass cylinders for fitting into the roadside "bowser," or petrol pump. These latter run up to 14 and even 16 in. in diameter, and are of such a weight as to make one marvel that the blower can handle them without disaster. The same process turns out the bowl for holding goldfish, or the delicately shaped cover for a 400 day clock.

Another branch of the glassmaker's art is the designing of globes for lamps and other lighting outfits. The figured designs are done by sand blasting and etching. Others again are embossed, the raised figures being produced by moulding.

Every article is neatly wrapped in tissue paper before despatch, while the work of packing, with the special considerations of safety during transit, requires the utmost care to avoid breakage.

Fly Wire and Mosquito Cloth.

Some four years ago the directors of the Cyclone Fence & Gate Co. Pty. Ltd. decided to commence the manufacture of wire cloth in Australia. They were aware that this commodity had been imported into the Commonwealth in fairly large quantities for the past twenty-five years. From the layman's point of view the production of wire cloth would seem to be comparatively easy, but just as the simple, plain signature is the most difficult to forge, so the production of seemingly simple articles may involve great problems in practical working.

The Americans, who have specialized in this branch of manufacture for a considerable period, had a big hold on the Australian market. To compete with long established industries, efficiently run, is proverbially hard. The company under notice found it so in this case. It was with great difficulty they succeeded in importing American looms, and after securing these they had much trouble in persuading experts to come to Australia to set up the looms, and train others to weave the cloth.

This period of negotiation, up to the commencement of the actual production of wire cloth in Melbourne, lasted altogether for nearly two years. Many problems required solving before the first loom was ready for operation. Even then the company found themselves faced with another set of troubles. The wire had to be imported, and their early shipments, they found, were affected by rust. This was eventually overcome by adopting a special method of wrapping the coils, and using the best quality oak casks for shipping. Other difficulties, one after another, made their appearance, all of which the company's engineers, in constant consultation with the management, were required to overcome.

The manufacturers were now ready to sell their goods. But it was quickly discovered, as is not unusual in cases of local products, that Australian merchants were not enthusiastic to use Australian

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made cloth, the objection being that imported goods must be better. With a good article to offer, however, the company continued their endeavours and their cloth is now in general demand despite the early prejudice.

Another difficulty which presents itself continually in Australia is the widely distributed population, rendering the interstate transport costs extremely high. The company have met this problem by removing part of their plant to Sydney and Adelaide, where they have branches, so as to enable deliveries to be made promptly in each State, and also to overcome the cost of freight and packages and casing.

It is interesting to find that whereas Sydney and Melbourne use nearly all 32 gauge cloth, in Adelaide the demand is for very much heavier gauge. Three gauges are, in fact, now made, namely 28, 26, and 24. The heavier gauges will now be made in all States.

Bronze wire is also being made by the company. This consists of over 90 per cent. of copper. Wire cloth made from bronze wire will last four or five times as long as galvanised, and is recommended for districts which are affected with salt air. The ordinary fly wire cloth is made of 33 gauge wire, which is galvanised before weaving. This ensures that the whole surface of the wire is thoroughly galvanised. After being doubly "wiped" in order to obtain perfect smoothness and brightness, it is very carefully wrapped in waterproof paper to prevent the least chance of contact with moisture, prior to the fine gauge wire coming to the looms.

With head office at 191 William-street, Melbourne, and factory at Abbotsford, the company as already indicated have manufacturing branches in Sydney and Adelaide.

Mr. H. S. Chambers, the managing director of the company, leaves in May next for America.

Storage Batteries.

As with many other Australian productions, the story of the successful manufacture of storage batteries is one of advance through failures and disappointments to ultimate achievement. Several small concerns have from time to time attempted to turn out a reliable job, struggling for recognition against great odds, but for years the result was the same. Each in turn was compelled to abandon the enterprise.

The reasons for failure were many. Perhaps the principal one was that most of these ventures were under-capitalised. It is always difficult to persuade the user to support a local industry while the manufacturer is still correcting faults in his methods as they appear. The pioneers seldom had sufficient capital to withstand the first long period of probation, that period wherein the wished-for buyer stood carelessly by, waiting for "the other fellow" to try the new product first.

In Melbourne, at least, the first makers to place on the market what might be termed a commercially possible battery was the Zenith Co. Users admitted that the "Zenith" was a creditable proposition, and this brand established a sound reputation. The company was later merged in the Vicor Storage Batteries Pty. Ltd. The management tell an interesting story of early efforts to get the correct raw materials, and to test at every point of production to ensure perfect reliability.

The hard rubber, which is a prime necessity for a good battery case, was difficult to obtain in Australia. The rubber companies were not familiar with this class of preparation, and the new industry had to persuade them that it was worthy of an effort. The battery makers could not at first order large supplies of rubber, and the rubber concerns needed to be convinced that the possibilities were there, and that they would eventually be compensated for their trouble and outlay. This hard rubber plate had to be without a flaw, so that the possibility of leakage might be eliminated. Its strength had to be beyond question, and its thickness uniform, while apart from these qualities, the finish of the rubber had to be such as to prove attractive to the eye; for, however sound the internal arrangement, an alluring exterior is the first to gain attention.



These problems have been successfully met and vanquished, and the makers claim that their rubber cases are now beyond reproach, being acid-proof, and possessing perfect insulating properties. The aim has been to make the "Victor" battery entirely Australian. The only materials which cannot be obtained here are some of the oxides used. These are British. In the early days of the Zenith Company an output of four batteries per day was considered fair. At the present time the capacity is up to 100 daily, and the output is expanding month by month.

Mass methods of production are in operation at the factory. Batteries are all standardised to eliminate duplication of operations or waste of materials. Economy is the watchword. The materials are tested at every point, and are chemically pure.

The first process is the casting of grids, which are then trimmed at one stroke in a press, and pasted with lead oxide. They are then air dried in a special room fitted with racks accommodating 15,000 plates at a time. The next step is the "forming," an electro-chemical process effected by immersing the plates, negative and positive, in vats through which an electric current passes. After a number of hours this is completed, and when washed and dried they are ready for grouping. This is accomplished by placing them in special jigs, and welding the post pillars according to the voltage required. The groups are then interleaved, separators being placed between the plates. The final operation is the fitting of the plates into the hard rubber containers, the necessary lids and connecting straps being added. When filled with acid and charged, the batteries are then tested by cycles of charging and discharging, the slightest discrepancy in readings causing the appliance to be placed aside for correction.

An eighteen months' guarantee is given with each battery, a guarantee which is carried out to the letter. This is a factor which the company claim

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has materially assisted to build up the trade to its present position. Not only has the Victor concern successfully marketed car batteries, but they have had similar results with their radio batteries, the difficulty now being to keep production level with demand.

The finished product is a compact, neatly fitted piece of work. While many imported batteries are unnecessarily heavy, the "Victor" is remarkably light, yet of full capacity. Those for radio use are fitted with a handle, which is set into metal brackets and keyed, so that it is impossible for the case to slip out. The finish and general appearance are excellent.

The office and works of the Victor Storage Batteries Pty. Ltd. are at 123 Stanley-street, West Melbourne.

Tennis and Golf Balls.

A. G. Spalding & Bros. (Australasia) Pty. Ltd., manufacturers of sporting goods, are introducing a new tennis ball, known as the "Latex" seam ball. Owing to the almost universal use of hard courts, and the consequent "speeding up" of the game, the problem of finding a ball strong enough to stand up alike to the heat of summer and the cold of winter has long confronted the manufacturers.

The first difficulty to overcome was inflation. Hard court players object to too lively a ball, which is difficult to control on hard courts. In the new ball this has been rectified, while the inflation still conforms to the requirements of the new standard compression test of the I.F.L.T.

Another problem was to permanently seal the slightest leakage from the ball of its original inflation. This has been surmounted by a gelatinous lining in the interior wall.

The third difficulty was the proneness of the seam that joins the covers to wear and fray badly on hard courts. Only after exhaustive experiments was it proved that latex, the milky extract which is tapped from the rubber trees, scientifically treated, created an extremely strong and durable rubber cement for tennis balls. The company claim that this solution welds the edges of the felt, and produces a cover which withstands the most extreme friction for a long time. Their "Kroflite" golf balls are also being treated in the same way.

With head office and sales department at 311 Collins-street, Melbourne, the company have their factory at Sunshine, a few miles out of the city.

Electro-Plated Ware.

That the manufacture of plated goods holds its own and advances despite influx of mass produced ware from overseas, is proved by the Sheffield Manufacturing & Plating Co. Ltd., of "Sheffield House," Wentworth-avenue, Sydney.

In works giving more than 14,000 sq. ft. of floor space, including the showrooms and offices, a modern plant adequately copes with a steadily increasing demand, chiefly in restaurant and cafe ware. Church furniture of brass and metal equipment of every kind, plain and artistic, for shop and other purposes, also largely engage the attention of the company.

Since the sudden demise, on September 8 last, of Mr. James F. Perry, Mr. W. Wright, until then secretary of the company, and Mr. R. Pontifex, have been the joint managers.

Stoves and Bath Heaters.

It is thirty-eight years since Mr. W. T. Carmichael began to make stoves in a little "shop" in Marrickville-road, Marrickville, Sydney. Growing with the population of the city and State, the concern became domiciled in a two-storey corner building erected on the same site, whence "Success" stoves for fuel and gas, bath heaters with various patented improvements, "Nubake" ovens for gas baking, and other appliances for the baking trade, including a new coke baker for pastrycooks, go out to users.

Some seven years ago the concern became a company, W. T. Carmichael Ltd., family owned. Space in the old-established works has become insufficient for the steadily expanding business, and a large area of land centrally situated at Auburn has been acquired. There works replete with everything that is most up-to-date in the way of plant and method of stove and heater production will also turn out radiators and the appliances wherein the firm specialise, and to which improvements are continually added to ensure saving of labor and cost of gas and other fuel. The manufacture of additional products at the new works is foreshadowed.

Lathes, Drills and Ball Bearings.

That opportunities exist in the larger fields of Australian manufacture is evidenced by the Purcell Engineering Co. Ltd., of Park-road, Auburn, Sydney.

Mr. Thomas Purcell's ideal when founding the concern in 1916 was production by Australian workmen of engineering products equal to the world's best. Initially some £70,000 was expended on land, buildings and plant at Park-road and Queen-street, Auburn. Nine years later the registered capital was £100,000.

The high ideal set in the inception of the enterprise has been maintained in the range of manufactures which under the "Vanguard" brand find a large and expanding market. From these works "Vanguard" locomotives ranging in power from ten to some one hundred and fifty tons are used in the sugar-country of Queensland, in South Australia on the Murray River reclamation works near Mannum, for constructional work at Tonga in the Cook group of islands, and at Singapore and Java. Everywhere these oil-driven locomotives give cheap and satisfactory service.

Other large undertakings include the making of beer boilers of any size required in breweries, and transmission gear for silos. High pressure centrifugal lift pumps in capacity of two million gallons against a head of 250, per diem, have been supplied.

A speciality is the "Vanguard" precision lathes in all the capacities used in engineering and other shops. Under the same brand come sensitive drills in 20 in. and other sizes. Special is the radial arm type of drills designed for rapidly drilling girders, and in structural and steel engineering from bridge building to railway construction and other work.

An important production is ball bearings within the 1/10,000th in. limit of error permissible, which test out at least equal to bearings manufactured in famous works overseas. The demand for this product has justified the installation of a plant costing £10,000.

The administrative officers are Mr. Thomas Purcell (governing), Mr. D. J. Malone (managing), and Mr. W. J. Travis, directors; Mr. C. F. Harrison designing engineer and assistant manager; Mr. J. W. Thurston works manager; Mr. J. W. Shelley machine shop foreman; Mr. G. E. Wrench foundry manager and pattern shop foreman; and Mr. E. J. Walsh secretary to the company.

Utensils and Other Metalware.

F. G. Kerr & Co. Ltd., of Pyrmont Bridge-road, Camperdown, Sydney, became a registered company in 1921. Established by Mr. F. G. Kerr twenty-two years ago in the location mentioned, progress continues under the managing directorship of the founder.

The departments are effectively equipped for the manufacture of galvanised-iron ware of all sorts

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for builders' and plumbers' requirements, galvanised-iron tanks from 100 to 10,000 gallons capacity, all classes of stationary and portable engine tanks, and containers for manufacturing confectioners and pastrycooks. An important department is the manufacture of seamless heavily tinned milk and cream cans equal to Danish models, with one-piece drawn and spun lid, and also other seamless dairy utensils.

Next come the domestic and hardware sections which account for a large range of spun basins and other utensils, including folding handle frying-pans, icemoulds and ice-cream containers, and heavy seamless tinned chocolate pans. Elevator buckets for flour mills, grain silos, and concrete mixing and roadmaking plants are also produced.

A special production is the handsome, patented pedestal chip heater "Quickbath" with combined hot and cold shower, which can also be used for domestic hot-water supply. Other prominent manufactures include galvanised crimped bends, an improved garbage tin sitting in a frame of heavy japanned steel with four legs, and foot-lever for opening and closing the lid, and shower heads. Recently the making of petrol and spirit measures was undertaken. These are without seams and are very strong.

Leather and Fibre Cases.

The extent to which leather or fibre bags and cases of different kinds are now carried by people of both sexes and all ages accounts for the rapid progress of P. & A. Herford, located in "Herford House," 53 Parramatta-road, Glebe, Sydney.

In 1917 the firm, consisting of the brothers Percy and Arthur Herford, began making leather suit cases and kit bags in a room in Adam's Chambers, George-street, Sydney. The quality of the goods compelled attention and created a demand so that larger floor space was taken in the same chambers. That also in twelve months became insufficient and a flit was made to "Pepperill House," Castlereagh-street, where an entire floor was occupied; by 1920 it became necessary to secure additional accommodation in the same building. In the beginning of 1922 the factory was removed to 27-39 Abercrombie-street, taking possession of the whole top floor.

On May 23, 1923, a fire occurred, gutting the building, and the firm's plant was destroyed. An immediate move was made to the premises at present occupied, where a new plant was laid down, including a lift. By the end of 1922 fibre as well as leather goods were being produced, a special plant consisting of rivetting, scoring and cutting machines of latest type being installed for the purpose. Gradually the plant was added to until now three floors of 12,000 sq. ft. are fully occupied. On the top floor where the office fronts the street, is the leather goods section; fibre goods manufacture occupies the second floor, and the ground floor is utilized as a despatch department.

"The Trip" trade-mark registered by the firm some two years ago now distinguishes their travelling goods.

Nitro-Cellulose Lacquers.

The modern types of nitro-cellulose lacquers for furniture, motor bodies, and similar purposes are now produced in Australia. For some time Hardie Trading Pty. Ltd., of 581-83 Little Collins-street, Melbourne, have been supplying nitro-cellulose solutions of their own manufacture to the tanning trade of Australia and New Zealand. As a development of this they are now producing a range of spraying lacquers and allied preparations. The factory is located at West Footscray.

As originally used by the Egyptians, lacquers were made by dissolving a vegetable gum in some volatile oil such as oil of cedar. The present day lacquers of the Orient are made from the sap of certain trees, (Anacardiaceae), of Japan and Burma. It is considered that the black Japanese lacquers probably suggested to Western Europe and America the japanning now so familiar. The lacquer tree grows throughout Japan.

Nowadays the term "lacquer" is used as a name for coatings of several different classes. All have in common the properties of rapid drying, and forming thin, lustrous films. Under this heading are resins dissolved in spirits, as well as solutions of nitrated cotton, with or without the addition of resins, oils, etc. The use of the word now covers dilute, quick-drying, oleo-resinous varnishes. But the tendency is for the first class to be termed spirit varnishes; the second, nitro-cellulose lacquers; and the third, varnishes.

In 1885 Alexander Parkes took out an English patent for the use of a nitro-cellulose solution coating but this has turned out to be a pyroxlin plastic. In 1856 M. Pelleu patented a collodion solution containing a proportion of castor oil, as a coating for balloons and toys. The development for some time subsequently was in the direction of solvents.

Later on the use of camphor with a nitro-cellulose solution, forming a pyroxlin plastic known as celluloid, became prominent. These plastics were re-dissolved, and applied as lacquers. Such solutions however, were of little use. They would not attach readily to a surface, were extremely soft and inelastic, had little gloss, and left an uneven film.

The next step was an American patent by J. H. Stephens for amylacetate as a solvent for pyroxlin. Richard Hale followed this by using mixtures of amylacetate, volatile petroleum products, alcohols, and acetone. As a result, such difficulties as lack of adhesion, uneven film, and softness, were partly eradicated.

W. D. Field contributed to this development, preparing pyroxlin lacquers with the use of fusel oil, with shellac and other resins. The present day lacquers are only modified in the use of different solvents, gums, plasticisers, and nitro-cellulose. All the lacquers up to this time were made for the protection of metals. Goldsmith extended their use to wood, and he is responsible for the idea of a resin lacquer over a pyroxlin coat, or vice versa, He made the first solutions for artificial leather, using castor, linseed, or rape oil to give this solution elasticity.

By the time the Great War broke out in 1914, Germany was making very rapid strides in the development of lacquers. She was producing solutions which stand almost alongside the best the world knows to-day. The United States came to the fore during and after the war; but Europe was the first continent to manufacture modern pyroxlin lacquers.

After the war countries like Great Britian and America had large stocks of gun-cotton, and munition factories, and looked around to put these to commercial use. This resulted in a boom in lacquers. New grades of gun-cotton were discovered, and many new solvents. Even the well-known amyl acetate has been superseded. A modern lacquer consists of a special grade of gun-cotton dissolved in a mixture of solvents, resinous gums, and gum solvents, with plasticisers and pigments. A well-designed lacquer has such solvents so graded that the rate of evaporation, and hence, drying, is rapid at first, and gradually slows, so that the lacquer flows up to the last moment to ensure flattening out and gloss. The gum itself must be clear and hard, and dry so as to leave the maximum gloss. Other properties are essential to render the lacquer sufficiently elastic to withstand normal expansion due to change of temperature of the surface to which it is applied. The balancing of the com-

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ponents is a very delicate business. The change of one or merely the proportion of one of the many, may cause a serious defect in the finished product.

The Australian firm referred to undertook long and repeated experiments, theoretical and practical, at the hands of experts, before they marketed their products. Their own fleet of cars has been used for six months' tests on pigmented lacquers. For furniture lacquers, over 500 finished products weathered on a factory roof for three months, only to be rejected. Dozens of gums were tried before one was pronounced suitable. All the known solvents were tried, but there was a gap in the boiling point graduation curve. This was filled by the design and manufacture of a new solvent named "Pyrosol." This solvent has proved more powerful than amyl acetate, which was discarded, has a less unpleasant odour, and is cheaper. "Pyrosol" is also supplied to the public by this firm.

"Spartan" lacquers and other preparations as marketed by the firm are eminently suitable for furniture makers, being best applied by air-brush or spray. Complete directions are furnished and the requisite spraying equipment is also available to secure best results. Quick and hard drying with a glossy finish a good lacquer is not easily scratched and neither heat nor cold affects the surface.

Theft of Cheque

A tradesman in New Zealand accepted in payment for goods a non-crossed cheque payable to the purchaser or order. The amount was £4, and as the seller knew the drawer's capacity to pay was undoubted, and was personally acquainted with the holder, there was no reason why he should decline the business. The holder of the cheque endorsed and handed it to the storekeeper, took his parcel and went away. Nothing turns upon this transaction itself, and the details are given only for the purpose of elucidating what follows.

That evening the cheque in question was locked up in the tradesman's safe, which, in the morning, he found a burglar had opened, and the money which it had contained, including the £4 cheque, had disappeared. Notice of the theft was immediately given to the bank, and the following day the cheque was returned to another storekeeper who had, in ignorance of the theft, sold goods to the full face value to a person who had come into the shop.

The question is submitted to us, which of the two must bear the loss. We think the one from whom it was stolen, as the second storekeeper is at present the holder in due course for value. If instead of the cheque a Bank of New Zealand £5 note had been stolen and cashed with a tradesman in some other town, then, although the identity of the note could be proved, the answer would be, "We admit the note was stolen from you, but it is a negotiable instrument against which we have given goods and cash, and we rely upon the fact that we are bona fide holders for value"; that contention would be unanswerable.

A cheque is a negotiable instrument if it complies with all legal requirements, and has not had its attribute of negotiability destroyed by an express crossing to that effect. The cheque we are discussing was a negotiable instrument, payable to a designated payee or his order. To complete the cheque endorsement by the payee was necessary, and this was effected in the presence of the storekeeper, who was personally acquainted with the drawer and the endorser. So far as we can see there is no legal difference between a cheque so completed and bank notes, when ownership is disputed. Each of the storekeepers had given value, the latter one who had no notice of the theft was, and is entitled to rely upon his possession, and holds by reason of that, and until his right is prima facie rebutted he has no necessity to prove that the party from whom he acquired possession had himself a good title.

It would have been different if the cheque had remained endorsed. Had it been stolen, and the thief endorsed the name of the payee, the title of anyone taking it would be bad, as the endorsement was a necessary portion of the cheque, and its correctness in the event of any dispute would have to be proved. The mandate by the drawer was "pay William Jones or order," and the person to whom the cheque had been passed, if he claimed against the payee, could not succeed unless he proved that the endorsement was correct. If an unauthorised person had substituted his signature for that of the one to whom the cheque was addressed the holder could not succeed.

We should, however, mention that the exception exists in favour of the banks, who are not required to verify the endorsement to a cheque payable to some specific person or his order. We will give our correspondent a little piece of advice which may be acceptable. Get a rubber non-negotiable stamp, and mark all cheques which cannot be banked the same day "non-negotiable" across their face. No loss can fall upon you if they are stolen. This is quite a simple but a very safe precaution. If you have no stamp write the same words across the cheque yourself.—"The Mercantile Gazette of New Zealand."

Approval or Return.

(From a Contemporary).

Generally speaking, when goods are sent upon approval or return the intention is that the person to whom they are entrusted may elect to keep them. Assent may be given by express words, by the customer detaining them for an inordinate length of time, or by dealing with them in such a way as to raise the implication that he has decided to purchase. The vendor may, of course, make any stipulation he considers necessary; for instance, he may make it a condition that the goods are sent for inspection only and must be returned within 24 hours, and that they are not offered for sale, but that if the purchaser wishes to buy he must first return the goods to the owner. Such a condition might, and probably would, enable the owner to sue for their return from a person to whom the bailee had, in breach of his agreement, sold them. Two or three cases have occurred in England in which the owner has entrusted precious stones to show persons who were possible buyers, and in all cases the gems were delivered into the possession of the agent under a memorandum in writing, setting out the terms agreed upon, and under which he undertook to return the stones at once if his customer did not buy. The question has arisen more than once between the owners, as plaintiffs, and an innocent purchaser for value who believed the man who had possession was the real owner and, relying upon that, had bought from and paid him the purchase-money. In each case the Courts decided that if the agreement could be construed as conferring a right upon the agent to himself become the buyer, the property passed to a bona fide purchaser, but if the true construction was that the bailee had merely the right to display and nothing more, he could not give, in fraud of the owner, any title to the goods.

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About Profit-Sharing

(From "Kemp's Mercantile Gazette.")

"Profit-sharing" is a word that may mean anything, or nothing. It is at attractive, and even tricky, term that has led to much conflict and confusion on the true question of work and wages. In its broadest sense, it covers the whole field of industry and business. In fact, every one who does something towards bringing out a saleable article from making up material does, ultimately, and in one way or another, take a share in the profit part of the price paid by the actual consumer. What, for convenience, we call the Capitalist—i.e., the man who finds the ready money or credit with which to buy material—naturally claims interest in the capital he so sinks on the very basis of the whole transaction. Then there are overhead charges, which are really the costs of carrying on commercially. Wages have to be paid at certain or agreed rates. But these wages are clearly the worker's share in the commodity he has helped to produce. The various items in the total cost of the thing finally produced for sale should include a share in the profit which is covered by the price paid by the purchaser. So it is, and so it must be, whether we speak of interest, wages and charges in a rough and ready way, or work it all out with many figures in an elaborate scheme of percentages.

These remarks are suggested by a recent book, "Profit-sharing: An Aid to Trade Revival," by M. E. Askwith, chartered accountant (Duncan Scott Ltd.). It is here said by Lord Leverhulme in his foreword that all schemes of profit-sharing should be built upon "the solid and equitable basis of mutual respect, founded on joint participation in the profit of their own industry." These are pretty words, indeed, but how do they work out in fact? For the worker, his wages are, and must be, a first charge on the profits ultimately made upon the sale of the goods produced. Then it is said that the evil of wages is their fixity, because no matter what profit is made on the goods created, the worker gets no more. That seems a reasonable point, but it could be met, as it often has been, by means of a sliding scale of wages. The truth is, that the worker wants fixed wages so that he may know in advance how he stands, and be able to regulate his way of living. He does see, however, that in good times and where high profits are made he gets the worst of the bargain. How can this be altered?

It is here said that fixed wages is the evil with which we have to deal. But it is not really the fixed rate of wages that does the harm; it is rather the fixed hours. For these prevent each man from earning any more than his fellows. But why should these hours be fixed so inflexibly? When the trade unions were created, now many years ago, it may be that such a restriction was necessary. Is that so any longer? Our workers can surely be trusted to settle for themselves how many hours a day they will work! In a report of an interview between some of our men and the American President at Washington, they explained to him that they had come over because they wanted to find out the inner secret of high wages. The record then goes on, "Smilingly, the President observed that American workmen were paid high wages because they worked." That is really all there is in it, and, with these words, the bottom fell out! If our workers were paid by piecework rates, or, in other words, were paid for the work they did, and when the work was done, how then?

It is certain that if a good workman were free to use his skill and energy at doing piecework, he would, through the high wages he got for it, obtain his fair share of the ultimate profits jointly made by capital and labour. Why is this not done? Simply because the workers are held down by the union they themselves created for their protection. That is the true evil of fixed wages paid by time, which prevents one man earning more than another, and aims at an impossible uniformity that is not to be found elsewhere in nature or in life. The present well-meant volume, although it is rather overfond of moral maxims and pretty platitudes, is an accountant's book. Probably, the scheme proposed would work out well in figures and on paper. It seems to us, however, too elaborate and complex for common use, and would raise suspicions in the workers. But is anything of the kind really needed? Our workers, both men and women, are not helpless children. They can see for themselves that, though their employers carry the whole risk, they also take most of the profits when trade is good. If the workers were paid by free piecework, at fair rates, they would get their due share of those profits, simply by the system of work and wages, without any scheme of profit-sharing. They can always become shareholders!

World Pig Iron and Steel Output.

(From New York Journal of Commerce.)

A recent study of the pig iron production of the world shows that for 1925 the total was approximately 75,000,000 gross tons, of which 36,400,000 tons was made by American blast furnaces and 30,960,000 by Western European furnaces. An interesting feature of these figures is the fact that the total is less than that of 1913, when 78,500,000 tons was produced, and that at no time since the war has the world's total pig iron output equalled that of the pre-war year.

For steel the same authority places the total world output for 1925 at 87,000,000 tons, of which the United States produced 44,300,000 tons and Western Europe 32,782,000 tons. The interesting fact here is that this total compares with 76,000,000 as the 1913 output, affording a distinct contrast with the pig iron figures, in that the steel output last year exceeded that of the pre-war year by 11,000,000 tons, or about 14.50 per cent.

An interesting fact also is that the American output last year was a little more than 50 per cent. of the total world output, whereas in 1913 it was only a little more than 40 per cent., revealing the greater predominance of the American industry in the world output. A similar comparison is possible in the pig iron output, where last year the American output was nearly 50 per cent. of the total, whereas in 1913 it was a little less than 40 per cent. of the total. In reviewing the achievements of other countries, the principal feature last year was the great increase in the production of both France and Luxemburg in steel over their corresponding pre-war volume and the rapid approach of Germany to her pre-war achievements despite the loss of one of her principal steel-making provinces, Alsace-Lorraine.

Viewing the figures as a whole, considerable interest attaches to the fact that the steel production since the war has gradually outstripped the pig iron, so that the spread between the two is larger than ever before. For example, in 1913 the two were nearly on a par, with the pig iron slightly in excess of the steel. In 1925, however, the total steel output was 12,000,000 tons in excess of the pig iron. The generally accepted explanation for this tendency, which has gradually become a prominent one, is the greater use of scrap in place of pig iron in steel-making operations. Where formerly it was considered that good steel could only be made with a large percentage of pig iron, to-day large quantities are made with a greater use of scrap.

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Royal Agricultural Society of New South Wales

ANNUAL METROPOLITAN SHOW

April 11 to 23, 1927

Special Report by Our Own Representative

"The best we can do to-day is not good enough for to-morrow," seems to be the attitude of the council of the Royal Agricultural Society of New South Wales. During the past year additions and alterations have been made improving accommodation and facilities for the staging of all kinds of products, primary and secondary. In both these sections, as well as in the number of competitive classes, and value of prizes, the society achieved another record.

It was well considered, too, that in the itinerary of T.R.H. the Duke and Duchess of York, a visit to Sydney's "Great Easter Show" should be included. No better plan could have been devised for bringing to the notice of our distinguished visitors the agricultural possibilities of the country and the means used for their realisation.

Every year sees changes and improvements in different types of machinery. Some of these are minor adjustments, but others are revolutionary changes that have completely departed from recognised types, and in many cases reduced to simplicity operations that were previously tedious and complex. Many of these are the result of years of patient experiment, testing, and retesting, until the inventor was satisfied that his machine, engine or apparatus would do all that he claimed for it.

From the standpoint of this journal, the return to the arena of several notable machinery merchants and manufacturers, who withdrew some years ago, constituted an important and welcome feature. The official agreement regarding more and better roads accounted, no doubt, for the abundance of road-making machinery and accessories. And the perfection to which many of these machines and implements have been brought could not fail to impress the visitor. Akin to this was the number of improvements in agricultural machinery which arouses the interest of farmers on each successive visit to the show.

This year's event also impressed people with the most recent developments in the application of electricity for industrial and domestic purposes. The marked tendency towards independent household refigeration for the purpose of preserving food was also well in evidence. While as yet the sizes and value of such plants are beyond the reach of the average householder, the lead is in that direction, and the ice man is threatened by the engineer. Finally, it was very noticeable that whereas a short ten years ago the names of British, American and Continental manufacturers were prominent on machinery and implements of all kinds, the machines now shown are very largely of Australian manufacture.

William Adams & Co. Ltd., of King and Clarence-streets, Sydney, had an exhibit of interest to shire and municipal engineers in the Barber-Greene loader and conveyer, which is now made by the company at Alexandria, where also the Fordson road roller and other machinery is made. A special feature, however, was made of the Adams adjustable leaning wheel grader wherewith it was shown that appreciably less effort is drawn upon in the making of earth and gravel roads than is required with straight wheel graders fitted with the same size blade. To this machine also a back stopper can be fitted for cutting ditches more uniformly, and obviously more cheaply than by hand. A new wheel scoop with certain original features, and designed by one of the leading shire engineers, was also included in this exhibit.

Armstrong, Holland Ltd., of 4 Bridge-street, Sydney, made a speciality of their road-making plant, Their well-known "Blue Champion" concrete mixers and other machinery for road and building construction was well displayed. The exhibits included concrete mixers, hand and power loaders, builders' hoists, etc. Of special interest to builders of large structures was a new model of a combination concrete mixer and hoist, capable of mixing the concrete and raising it five or six floors. The firm had also on view a model of their new machine for handling the new size cement paper bags. In addition, there was a full range of road contractors' materials, including the "Lion" crude oil road roller, tar boilers, Jaques' Bros. stone crushers, road ploughs, scoops and graders, and conveyance gear for factory use.

As evidenced by the exhibition of three new types of weighing machines by the **Australasian Scale Co. Ltd.**, of Sydney, the recent development in the application of automatic self-indicating scales for shopkeepers' use, is now satisfactorily carried into the industrial field.

The Avery dial dormant machine, No. A.651, is designed expressly for wool stores and other industrial concerns, is built upon a simple pendulum principle, and is, therefore, more accurate than machines dependent upon springs, steel tapes or liquid displacement. The cabinet is constructed of rolled steel set upon a cast-iron base, stands complete 6 ft. 5 in. high by 3 ft. 4 in. wide. The dial which can be graduated to suit requirements within the limits of the Board of Trade Weights and Measures Regulations, has a reading line 30 in. diameter, and is protected by a glass cover. This machine is listed in five different size platforms with capacities of from 5 up to 40 tons.

The second innovation, listed "Asco" No. 580, is the firm's own invention, specially designed to meet the conditions of butter factories wherein weighing machines must be daily washed down, and provision made to guard against corrosion of knife blades, and bearings from the salt laden atmosphere. This machine has all the weighing mechanism above the

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load, so that no brine or hot water can penetrate the bearings. It has also an automatic indicator showing the over and under weight.

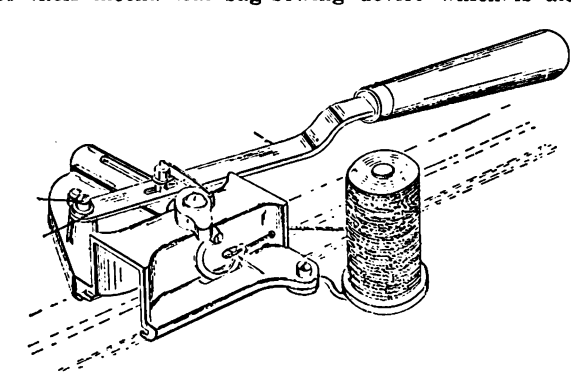
Avery A.771 is styled a Difference Weigher, and is used for checking the weight of sacks of flour and the like. It has a self-acting indicator on which the pointer shows whether the weight is correct, indicating the amount of variation within a range of 5 lb., light or heavy. The human element is reduced to loading the scale and reading the chart, effecting a saving of both time and labour.

Among the many interesting exhibits on the stand of the **Australian General Electric Co. Ltd.**, 93-95 Clarence-street, Sydney, the most up-to-date were the "Australite" country house lighting set, the "Serval" refrigerators, and the "Thor" folding ironer set. The lighting set is equipped with a device to make it automatic, semi-automatic, or hand-controlled, simply by moving an indicator to the desired control. The engine, which is made by the Austin Motor Car Co. Ltd., is fitted with two cylinders instead of four, and the generator, 32 volts., from the British Thomson-Houston Co. Ltd., of Rugby, England. Simplicity and compactness characterise the whole outfit which is capable of supplying up to 60 lights.

The new "Serval" electric duplex refrigerator unit can be connected up with any moderate size ice chest at a low cost. All that is necessary is to instal the chilling tank in the ice compartment and link up with the unit, which can stand in any convenient or out of the way place. Refrigeration is obtained by using a harmless methyl chloride, and no salt and water is required in the tank, as with some similar machines. It is also automatic in operation.

The "Thor" electric ironer is a portable apparatus which can be connected to any electric switch. Folded when not in use, it engages no more space than a kitchen chair. Pressure on the heated ironing surface is self-adjusting, thus enabling delicate articles, such as lace curtains, to follow immediately upon the operation of ironing large or heavy articles. All that is necessary is to sit at the machine, press a button, and feed the article between the heated roller and base in the manner of mangling, with which machine, however, it must not be confused. Dresses, skirts and lace articles are as efficiently ironed as are table cloths, serviettes and such like, and virtually in as many seconds as minutes required by hand-iron. This machine is designed for household use.

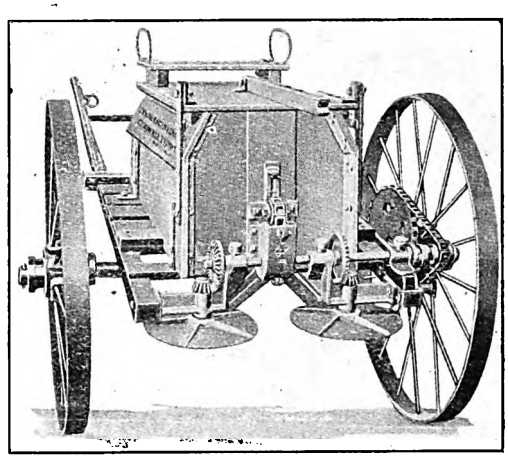
Collis' Bag-Sewer Ltd., of Phillip House, 109 Phillip-street, Sydney, drew the attention of farmers to their mechanical bag-sewing device which is an



Australian invention calculated to find a ready market. With it any bag of produce can be strongly sewn with regular bag twine at the rate of one per minute with so little exertion that a small boy or girl can do it efficiently. An advantage, too, is that the stitches need not be cut, only the knot, when the twine or thread can be withdrawn in a second and reused. The machine weighs complete only 7 lb. and is therefore speedily removed from bag to bag, the latter taking the weight of the machine while in operation. The needle, which is specially strong, is an automatic self-threader and will sew through six parts of bag with ease and safety. The close stitching minimises loss through leakage, and with the same length of twine 32 stitches are obtained as against 18 hand sewn. All parts are standardised and numbered to accommodate refitting when required.

The Clyde Engineering Co. Ltd. had on view a wide range of manufactures from their Granville works, comprising agricultural machinery, batteries for all purposes, porcelain baths and sinks, water meters and a most interesting collection of brass and steel drop forgings.

Seen for the first time was a rotary manure spreader, which, only 5 ft. wide, spreads the manure 20 ft., and will go safely into hilly and timbered country. To load the hopper it is only necessary to press the end of the staff down and swing the lid right open, allowing the staff to rest on the ground straight out. Then place the bag of fertilizer on the lid, resting the bottom on the two brackets provided, and hook the bottom of the bag to prevent it sliding



into the hopper when elevated. Open the sewing of the bag for about a foot in the middle only to prevent it spilling over the sides. Then grasp the staff at the ground end and tilt the bag over the hopper, allowing the end of the staff to rest on the cross shaft. A few shakes in this position will empty the bag, and the lid can be closed for working. The gate or slide inside the back of the box is the only means of regulating the quantity distributed, and is held in position by a wing nut on the outside. When the slide is right down on the chain the minimum quantity will be sown, which is 1-cwt. to the acre, but if more is required, it is only necessary to raise the slide. If the slide is raised 1 in. 2 cwt. per acre will be distributed, and any variation can be made between those positions to suit requirements.

Dalgety & Co. Ltd., of Argyle-street, Miller's Point, Sydney, had, as usual, a very excellent display of high-class machinery and implements for dairy, farm and station. The main feature, however, on their stand this year was the "Electrion" plant, which is a complete electric generating outfit, suitable for country homes, hotels, and other such purposes. It is different to any other outfit

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of this type, inasmuch as the whole of the machinery, including petrol engine, 32-volt dynamo, and all control apparatus, is enclosed in a steel cabinet, which gives it full protection, and makes it dirt and dust proof. The engine is water cooled, an important feature in this warm climate, and it has a radiator and fan for cooling the water just like a motor car. Pressing a button sets it to work, and it stops automatically immediately the battery is fully charged. This battery consists of 16 cells of Clyde manufacture, and has a big storage capacity, and the plates are fully visible through glass jars, fitted with glass tops.

In keeping with the spirit of the times, the arrangement of the numerous exhibits of **John Danks & Son Pty. Ltd.**, Pitt-street, Sydney, may be said to have been modernised, from the fact that a more tasteful and comprehensive display was effected. This firm's machines and implements for farm, orchard and station use are too well-known to require detailed description in the columns of this journal, but their re-arrangement deserves special mention, as others, besides the writer, were attracted as if to an entirely new display. As formerly, the specifically agricultural sections occupied the lawn in front of the pavilion, while the latter took upon itself the effect of a series of well dressed windows, where tools and perquisites of trade and every conceivable article for household use could be seen, if not actually inspected to advantage. Practical demonstrations of Rogers brushing lacquer for many uses, and which "dries while you wait," attracted a constant stream of interested enquirers. Old chairs and other specimens of furniture, flooring, partitions, etc., take upon themselves an enamelled appearance so very readily which, together with the list of colours, eighteen in all, make a strong bid for this lacquer over ordinary paint and enamel, requiring from twenty-four to thirty-six hours to dry. For decorative purposes it certainly offers many advantages.

The Electric Home Lighting Ltd., of 143 Castlereagh-street, Sydney, featured the Westinghouse lighting and power plants, which are designed for homesteads and hotels, where the usual electric light supply is not available. The disposition of these plants is their application for refrigerating, pumping, shearing, milking machines, washing, etc. Besides electric cooking ranges and appliances containing modified improvements in many instances, special attention was drawn to an automatic electric iron which is kept at an even heat while in use, the current being automatically cut off when the iron is becoming too hot, and switched on again as it becomes cool.

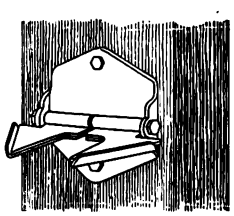
After a lapse of several years, **Gibson, Battle & Co. Ltd.**, of Kent-street, Sydney, returned to the showground with a fine display of road-making machinery, most of which is now made in their own works at Alexandria from the drawings and specifications of the British Associated Machine Tool Makers Ltd. and the Chain Belt Co., of Milwaukee, U.S.A. This exhibit included Rex concrete mixers, Gallion graders and light rollers. Inside the stand was a splendid range of machine tools, notably Butler shaping machines, Petermann automatic lathes, brass finishers' tools and a Godfrey oxy-welding machine of the latest design, which was shown in operation. At the rear was a fine model of a McLaren traction engine with a 12-15 ton roller. This engine was exhibited at the Redding Show in England last year, and the Sydney firm, we understand, are now manufacturing similar engines of a lighter type at their own works. Likewise noticeable on this stand was a 100 h.p. Suezer Diesel engine of the maritime type, an exemplification of compactness and strength showing the small space now necessary to use the modern marine engine.

Mr. J. W. Glasby, of 73-5 Bayswater-road, Darlinghurst, Sydney, is the sole selling agent for a new automatic ice stove which obtains its low freezing point by heating either from electricity, gas or kerosene, as may be desired. The unit is complete and is notable for containing no working machinery such as compressors or electric motor. Connected to the source of heat it is brought into action by simply turning a small handle. It will function in any climate with any temperature or cooling water, and produces a dry circulating air in the cooling chest. This ice stove is made in sizes from 5 to 200 cub. ft. capacity, and can be obtained in either fixed or portable types. The former, styled "Three Stove," is constructed for ice making, while the latter, the "Six Stove," is for making ice and chest refrigeration. On exhibition also were two ice cream making machines, half and one kilo respectively.

The exhibit of **Hadfields (Australia) Ltd.**, whose works are at Alexandria, Sydney, was more especially concentrated upon their heavier productions than formerly. Interest centred in a huge snaft, 3½ tons in weight, manufactured to the order of the New South Wales Railway Commissioners for a 42 by 48 primary jaw crusher at their quarries at Kiama. Even this has been excelled by the company, who have produced for the New South Wales State Industries Quarry at Bombo, and are now assembling, a 60 x 48 jaw crusher. There was also a fine display of mining, railway and other parts, carbon and alloy steel castings, patent "Era" manganese steel castings, steel forgings of all descriptions, rotary ball mills for reducing dust in mines, air compressors, double toffle, disc, gyratory and other crushers, portable crushing and quarry plants.

Hannams Ltd., of 134 Castlereagh-street, Sydney, made a fine display of the latest water heating appliances, including bath heaters for use with either gas, wood fuel or electricity, of which they are the manufacturers. A special feature was made of a newly designed heater with warm shower attachment whereby the water is retained at a comfortable temperature. They also introduced the "Waku" electric vacuum cleaner, which is of a rather distinctive type, and for which they are the sole agents. This machine effects a continuous suction, and the motor is fitted with ball bearings on both sides, and is stated to require no lubrication whatever. Another feature is that it has an aluminium dust box entirely covered yet easily accessible and manipulated. Another addition to this exhibit was a chain constructed "X-L-All" verandah, and an all louvered lath blind, each shown with sure-grip pulley.

James Hardie & Co. Ltd., of York and Wynyard streets, Sydney, combined with their new bungalow cottage, demonstrating the application of asbestos and fibro sheeting, etc., a comprehensive exhibit of "Samson" metals, gates and fences manufactured at their Alexandria works. In addition to several improvements shown in the production of gates, special attention was drawn to a novel two-way catch which has an appeal for tradesmen's entrance gates as well as for farm and station use. The principle of this catch is the sureness of fastening from the action of slamming, the force being resisted by the catch, which is made from stamped metal, and, therefore, has a much longer life than the popular arm or bolt catch.



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The Copeland system of electric refrigeration "for cottage or castle," was comprehensively arranged in a newly-erected stand for the distributors, **J. K. Johnston Ltd.**, of Liverpool and Kent streets, Sydney. This machine, it is claimed, embodies all the latest improvements. It is driven by a one-sixth horse-power motor, and can be coupled to any lighting point or household generator. The cost of operation is infinitesimal as compared with the many advantages it offers. Dry cold air is provided, which allows no contamination of food, while the temperature is automatically kept to about 50 deg. Fahr., consequently all foods can be kept in one compartment for a long period without fear of spoilage. The firm also handle the Armitage lacquer for automobiles, which gives a pyroxolin finish.

Nock & Kirby Ltd., of George-street, Sydney. have come into line with other retail Sydney stores by setting up a permanent pavilion at the show ground. On a site which became vacant only ten days before the opening day, the staff of the firm completed the erection of a fine large pavilion fitted with suitable display stands on which were attractively arranged examples of the many hardware and kindred specialities for which they are favourably known.

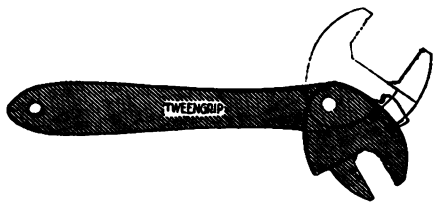
Although the "Digger" winch, made by the **Quick Manufacturing Co.**, Thornbury, Victoria, has been on the market in that State for several years, it has not before been exhibited at Moore Park. It was not, therefore, surprising that farmers and others should manifest their interest. The "Digger" winch shown was the new approved model, the pulling power of which is obtained by a patent snatch block device operated by a lever handle. The standard equipment provides for a radius of action approximately 85 feet, but with increased length of wire rope this can be effectively increased. A feature of this apparatus is that a boy can carry it around, yet there are few, if any, tree stumps that will not give way within a few minutes to its wonderful pulling action operated by one man.

Buzacott & Co. Ltd., 7-11 Market-street, Sydney, are the agents for N.S.W.

The familiar stand of **T. Robinson & Co. Pty. Ltd.**, of Melbourne, held again a comprehensive exhibit of farming machinery and implements. The whole of the display, with the exception of the well-known John Deere tractor, for which the company are sole agents, is of Australian manufacture from the company's factory. The feature of the exhibit this year was a new model wheat header, designed by one of the company's staff, and which is claimed to have reached the maximum of efficiency so far attained by this class of machine. A 9 ft. machine, it has been constructed with a view to eliminating weight. It can easily be operated with four horses, and has a chain drive and no spur gear. All the supports of the comb are wrought to prevent bending. A specially good feature is that the space between elevator and the drum has been reduced to 18 in., thus eliminating the possibility of choking. The oiling system has been considerably improved and the number of oil holes reduced.

Seen for the first time at the Easter Show were the "Griffin" patent reinforced shovels which are hammer forged, well balanced and of uniform quality, and are manufactured by **Tulloch's Phœnix Iron Works Ltd.**, Rhodes, near Sydney. The range comprised "D" handle square mouth shovels, round mouth in all standard sizes, long handle, "T" handle navvy shovels in round and square mouth; also styles of trimmers and long handled strapped shovels. The steel used in the blades is obtained from the Broken Hill Proprietary Ct. Ltd., Newcastle, and the handles also are produced in N.S.W.

The Tweengrip Tool Co., of 5 Dalley-street, Sydney, effectively introduced by many individual sales an ingenious new device in spanners styled the "Tweengrip" wrench. Made from case-hardened steel, this tool is self-adjustable to any size of nut, and is efficient in being impossible to slip. It



operates on a ratchet principle which is contained within the head, the adjustment being entirely automatic and free from any worm screw or other regulating device. It is made in four sizes suitable for engineers, motor garage, building and general tradesmen's use. The size 6½ in. has been tested to 1 cwt., and 10½ in. to within 5 lb. of 10 cwt. when the bolt broke.

Warburton, Franki Ltd., of 307 Kent-street, Sydney, confined themselves to the Delco-Light home lighting systems and "Frigidaire" refrigeration. Of each a good display was made at their permanent pavilion. A new feature in an automatic Delco-Light set for operating "Frigidaire" cabinets. This is fully automatic, and when the automatic control of the "Frigidaire" cabinets comes into operation it starts the machine, which continues working until the control cuts out. The cabinets have all the points of refrigeration as against ice for household use. As the air is perfectly dry, all varieties of food can be kept in one compartment without fear of tainting. The cabinets are in all sizes from 4½ to 100 cub. ft., suitable for all purposes, from domestic up to hospital use. Another exhibit was the "Frigidaire" ice cream cabinet, suitable for shop use, for the storage of ice cream and ice blocks.

A feature that aroused much interest in the permanent pavilion of **Wunderlich Ltd.** Redfern, Sydney, was a new Adams period art metal ceiling beautifully reproduced. Another innovation was their own make of asbestos-cement building sheets. The simplicity of the use of this in construction was demonstrated by a room erected outside their pavilion and left uncompleted, showing the sheets simply nailed to the wall studs and ceiling joists, and finished in a similar manner as are fibro-sheets with cover batons fixed over the joints. These asbestos-cement sheets are produced in regular stock sizes and in two finishes suitable for both exterior and interior walls and ceilings. They were also showing, for the first time, two examples of architectural terra cotta, a new material for the purpose of decorating facades. One example of this is made to imitate granite of a grey colour while the other was of polychrome terra cotta formed into a medallion with drop ornaments in green relieved by berries in red on a buff ground. Both plaques demonstrate the great possibilities of this material for original cromatic and decorative architectural effects.

Not Him!

Shop Foreman: "You ain't one of them blokes wot drops their tools and scoots as soon as knock-off blows, are you?"

Lily White: "Not me. Why, I often have to wait five minutes after I put me tools away before the whistle goes."—The "Sydney Bulletin."

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Workers and Wages

(From "Kemp's Mercantile Gazette.")

In these quiet columns we never enter into any controversy, whether it be Political, Social or even Economical. But the world of workers, whether by brain or body, is just now faced with some fertile facts that call for passing comment. It is useless to deny that what we call Capital and Labour, are not pulling together in this country. It is certain that this hampers the possible growth and progress of our trade, by which alone we can all live, and without which we must surely die. Employers complain of dwindling output and profits. Workers fear reduced wages and longer hours. Strikes are in the air. But, worst of all is the want of harmony, confidence and good feeling that should exist between the two partners, whose joint work is needed to produce goods for sale. This is the central fact with which our trade is faced, and it is useless to try and cover it up with long words, or to deny its existence. Into this confusion there has come a book, written by two English engineers, who have only lately returned from America. It is called "The Secret of High Wages," and it is by B. Austin and F. Lloyd (Fisher-Unwin, 3/6). It has caused some sensation, and is selling largely, both here and in America, because written simply and sincerely by these two young workers; and it is the first to face the facts. It is of deep interest to both masters and men.

Conditions of life and labour in England and America are so widely different that it may seem to many quite useless to make any comparison. But, after all, there are some facts and principles that rule equally in both countries, and these should come in for consideration. In the United States, it pays an employer to give these high wages, because they bring him those still higher profits out of which he makes his money. The American manufacturer begins with the individual worker, and deals with his wages afterwards. With us, the process is wrongly reversed. Our contractors start with the wages to be paid. Then they put in the workers to be employed, and so many items or hands in the calculation, without in any way regarding them as persons having wills and ways of their own. There is no freedom here for either master or man as to the hours of work or the wages payable. All competition between workers is killed, and so also is the very life-spring of their energy. In America every man is free.

With us, the workers have no true freedom. Nor have the employers. Masters and men are held up and shackled at every step by the trade unions. These curious corporate bodies first sprang into being during the darkest days of our early industrialism. They then did their good work in curbing the tyranny of Capital. But in their growth and aggrandisation they have now themselves become tyrannical. It is common to condemn the Feudal system, which, in its own day, was sound enough, yet is now dead and buried. The principle upon which trade unionism was, and is, ultimately founded is the same as that of the ancient Feudal method. The one aim of the old land law was to keep things as they were, with no freedom of use or transfer. The basic idea of a trade union is to maintain its members in the same position as to hours and wages; to compel uniformity; and to make the worst and slowest worker the standard by which all the others should live and labour. This kind of rule and regulation is merely the old Fedual system all over again. Both these tyrannies would allow no freedom of action, and aimed at ending all individual liberty of choice. Times are now changing before our eyes.

There is no "secret" of high wages, other than the right of every man to sell his own labour as he likes. The wages he can earn are made by the work he can do. That work depends upon his willingness to accept long hours, and take payment by the results. That freedom to work is the only secret key to the progress and prosperity of America. Of course, it means that the waster and the slacker among the workers will get left behind. Well, that is the law of life everywhere else but in the rules of trade unionism. It is only another way of putting the survival and the success of the fittest and the fastest in the old race for front places in the world. With the unfettered freedom of America, our willing workers would soon show an even higher rate of wages, bringing their employers still bigger and better profits from an extending and abounding trade. Our out-of-date unions are keeping back the workers and the country. There are indeed some slight, but significant, signs that many members are coming to wonder why they go on paying an army of officials whose one aim is to keep things as they are, in a state of Chinese stagnation! Freedom is the great rule of life and of law.

An Alert Salesman.

(From "Hardware Age.")

"Give me a cheap pair of pliers," said a farmer who walked up to the counter, one hand in his pocket, ready to pull out a quarter.

"All right, sir," responded the alert salesman. "We can give you a pair as cheap as you want. Do you want a pair for all round use, or are these for some special purpose?"

"Oh, I just like to have a pair around the barn for anything I need 'em for," the farmer replied.

The salesman laid half-a-dozen pairs of pliers on the showcase in front of the man. "This pair," said he, referring to one, "is a twenty-five cent pair. They're pretty small, but they'll take hold of a three-quarter inch pipe. Here's a pair for forty cents that will take inch pipe. But if you want a pair that will do about everything pliers ought to do, here's a pair for a dollar that are dandies. See that wide cutting surface easy to get on to a wire and long handles so you've got plenty of leverage? They've got a flat grip for flat work and a round grip for round work and they're forged steel with one handle a screwdriver and the other a reamer. When you get a pair of those, you've got something."

There's a salesman who isn't just standing there and handing out whatever is asked for without using any brains. He sold the better pliers and every day he sells something better than the easy way would sell.

Never let an account grow whiskers.

* * * *

There's a time for everything and it is seldom in the future.

* * * *

The only influence worth having is the influence you yourself create.

* * * *

It is not the size of your stock that makes it possible for you to clean up a good profit—it is the rapidity of the turnover.

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The Giving of Presents in the Business World

("The Mercantile Gazette of New Zealand")

At the presentation to the executive officer of a well-known institution the other day, the recipient made a statement that the gold pen and gold pencil that had just been given would not in any case be replacing mementoes of a similar character that had been tendered to him by individuals or firms with whom he dealt on behalf of the organisation.

There is a wealth of meaning behind that simple recital. The officer referred to had occupied an important public position for seventeen years, and no doubt frequently had the opportunity of bestowing favours on those from whom vast purchases were made. The fact that no presents were offered the officer during the whole of the period speaks volumes for his reputation for trustworthiness and integrity on the one hand, and for the honesty and straight dealing of the persons with whom the concern deals on the other. It is a somewhat refreshing commentary on the standard of practice adopted by our more prominent traders when such a statement can be made. Full credit is due to the officer concerned, however, because some people probably would have endeavoured to court his goodwill had not his reputation for rectitude been so generally known.

Due, perhaps, to the preponderance of British stock, this Dominion is singularly fortunate in respect to the absence of what might be termed minor "graft," and it is to be hoped that the day is far distant when those who desire trade will resort to the tactics of some of our commercial confreres in other parts of the world. While it ill becomes us to vaunt our honesty, because such a policy is only what is expected of reputable citizens, it is pleasing, nevertheless, to realise that, despite the keen competition that is so much in evidence nowadays, New Zealand business men as a class conform to a stricter code of ethics than is the case elsewhere. In this respect we believe that we are specially fortunate in regard to the calibre of the responsible men in the civil service and in our local government bodies. It is admitted, of course, that there is a healthy public opinion as to the taking of bribes, but all the same credit should be given where credit is due. Too many of us are apt to take these things for granted without appreciating the temptations that are sometimes placed in the paths of our purchasing officers or those who are responsible for the expenditure of thousands of pounds of public money. A young man oftentimes is receiving a meagre salary, yet he is expected to turn, and in the majority of cases he does turn, a deaf ear to those who would persuade him to overlook some little irregularity which, without his close inspection, would maybe never be noticed by anyone else. The wonder is, not that a case does come under notice sometimes where an officer has committee a breach of duty, but that we have not a greater number of such lapses.

The only way to maintain the right standard of conduct is by rigorously dealing with offenders against the moral code. Where there is the slightest indication that an individual is either desirous of seeking a bribe or of giving one the matter should be reported to those in charge. Usually the person who gives a polite hint that a "present" is expected can be suitably dealt with by firm action at the outset. If that is not effective, or if the party who does not respond is prejudiced, the principals should be informed of the position. It can be taken for granted that in New Zealand our business leaders are, with very few exceptions, men who will not tolerate the insidious system of bribery on the part of their employees. They can be trusted to deal suitably with those who transgress.

The giving or taking of even minor gifts is likely to lead to serious consequences. We will suppose that in connection with the delivery of certain stores the clerk who accepts the goods on behalf of his principals agrees to the substitution of one or two lines because the supplying agent has run short of the specified article. In order to show his appreciation the supplier gives the clerk a small gift, such as a silver pencil or a cigarette case. In the case referred to, the alteration in the order may have been quite reasonable, and that no exception could be taken to what the clerk had done, but directly he accepts a gift for doing, after all, what was only his duty, he violates an important principle. Next time the supplier may be inclined to try another variation by which he makes a substantial gain, and if he can win over the goodwill of the clerk by giving him a shaving outfit he will have started the young man well on the road to ruin. It is easy to imagine the final outcome.

As we have remarked, cases like these are fortunately rare in this country, and we desire this happy condition of affairs to long continue. When a firm has to "purchase" business by bribing the employees of the buying firm, it is obvious that someone has to pay the price either by giving a higher rate or by taking an inferior article. A firm that works on the principle of "loading" a price so that a "rake-off" can be provided for the helper corrupts not only its own employees, but all with whom it comes in contact, and it is only a matter of time before it "goes to the wall," and that fact is generally recognised.

Just before Christmas we were asked our advice as to a problem that confronted the managing director of one commercial concern. During the year some of the managers had received favours at the hands of various customers, and they desired to express their goodwill in slightly more tangible fashion than the sending of a greeting card. The director referred to stated that he was strongly opposed to the sending out of anything that might be interpreted as the giving of a present. It was not the amount of money involved, but the principle with which he was concerned. We suggested that perhaps the sending of a small package of cigarettes, or the giving of a book in the name of the individual manager and not from the firm at all, would perhaps meet the position, it being understood, of course, that such a proceeding would only be in cases where the relationships were so personal that no wrong inference could be drawn. It is always a difficult matter to deal with such cases, but at Christmas time the interchange of minor personal gifts, where there is a degree of friendship apart from one's business relationship, is, we think, permissible. If, however, one feels at all uncertain it is better not to send anything.

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The Small Trader Wins Out

(From a New Zealand Paper).

Every once in a while there is a wail from a small town dealer that the life of the store in the smaller centres is doomed, and that the big fellows in the larger towns are going to put all the small men out of business. Never was there a greater fallacy. Just as "big fleas have little fleas upon their backs to bite 'em, the little fleas have lesser fleas, and so ad infinitum," so the big stores have other big stores to contend with, and, what is even more troublesome, the small stores which are near at hand. The significant point is that most of these stores, both large and small, are doing well, making money in spite of the difficulties that loom up so big in the imagination, and truth to say, in the experience of some small-town dealers.

In any metropolitan centre you will find a number of long-established stores located away from the main shopping centre, yet whose patrons are within easy access of the big establishments. And within a few miles of these cities, in suburban towns, you'll find many other stores, all of which continue not only to live, but to prosper. Retailers everywhere complain of the motor car or the train that takes their customers to the larger centres, and yet when you go back to these small towns you find some retailers at any rate who appear to be doing well. It is true that a goodly number of such stores are having a struggle to make both ends meet.

We are afraid that in many cases the owners of the stores who are up against it lack the knowledge of human nature that everyone needs if he is to sell successfully. Frequently one meets that attitude of mind that their neighbours ought to "support" them. Most people, however, feel free to buy where and when they like to buy. The merchant who fosters the "support me" idea in his own mind only gets himself disgruntled and sore at his neighbours because they do not see things in the same light. The only sound plan to adopt is to make the store and the goods more attractive, and by service win them over. Tell your neighbours what you can do for them rather than waste time telling them what you think they ought to do for you. It is the personal element that counts most of all in business, and in that respect alone the small-town retailer has a tremendous advantage over his competitors in the larger centres.

Then there is the matter of buying. Lacking a good system of control, a big percentage of small-town retailers' stocks are a lot larger than they need be. It is admitted that you must have assortments, but how often do you find your shelves loaded with goods that are seldom called for?

Having to buy in small quantities is certainly a disadvantage, but there is nothing to prevent a number of nearby small retailers forming a group and uniting their buying forces. A group of this kind can do its purchasing in unison, and thereby get better selections, besides more advantageous prices and terms. It can also exchange information among its members as to cost of doing business, number of stock-turns, and how they are obtained, the kind of goods that are selling best, the prices that are being paid for merchandise, and a hundred and one other points that are of mutual interest.

Because a small-town retailer has a smaller store he should be able to watch the details better. By having a good stock system he is in a position to eliminate some of the leaks that are the bugbear of his big competitor in the larger cities. His store is more convenient to the people round about, and being close at hand he can always pick up a certain amount of trade. He is in a position to know his people, their tastes, and the extent of their pocketbooks. By rendering good service he can make his neighbours like him as a man and a merchant. Even if he lacks the big city stores' ability to make a reputation for all or most of his departments, he can still run things so that his neighbours will say that taking everything into account his store cannot be surpassed.

From Credit to Cash.

(From "Hardware Age.")

After hearing the expressions of opinion from various dealers, especially those in the smallest towns, on which it is possible to hold credit sales down to a 30-day basis or whether more than 10 per cent. can be obtained as the down payment on the instalment plan, it is indeed refreshing to hear of a dealer who has solved his credit problems to his everlasting satisfaction. Most dealers seem to feel that they are forced by competition to grant ruinously long credit terms, and it is only a question of how far they can go and still stay in business.

J. C. Wade, of Wade & Dawson, hardware dealers at Monroe City, Mo., on the other hand takes the position that credit in any form, either short or long terms, is absolutely unnecessary. Mr. Wade is frank to admit that he did not always believe this, and it was only after a practical demonstration in his own store that he became convinced that a strictly cash business was not only possible but also highly profitable.

The Wade & Dawson hardware store is no different from hundreds of other hardware stores scattered over the country. It is located in an agricultural town of about 2,000 population, carries from a 16,000 dollars to 20,000 dollars stock, has an annual sales volume of about 65,000 dollars and has been in existence twenty years. For the first sixteen years it did the same as most other similar stores—extended credit in a rather free and easy way, six to twelve months usually, according to the wishes of the customer rather than the firm's.

In 1922, at inventory time, a situation had developed that had become unbearable and nearly unsolvable. The boom days of 1920 were well over, collections were terrible and the annual checking up found the store with over 9,000 dollars outstanding in open book accounts—an amount that was nearly 60 per cent. of their entire stock. Of this amount 600 dollars was hopelessly uncollectable and a good share of the balance none too certain. Mr. Dawson insisted that he wanted his profits represented by cash in the bank and not accounts scattered around the territory and that the store must adopt a cash sales policy. Mr. Wade was equally insistent that it couldn't be done, that it would mean a sacrifice of their sales volume and ultimate ruination of the business. Mr. Dawson's comeback was that the business was fairly well ruined by the credit plan, and after sixteen years of it they might as well finish the job by trying the cash plan for a year.

Mr. Dawson won the argument, and the first of the following month saw the inside of the store plastered with large cards announcing the change, while newspaper advertisements and circular letters explained in detail that the store was forced to make the change and why. Much to Mr. Wade's surprise the vicissitude caused no appreciable difference in their sales volume or in their customers' attitude toward the store. Farmers who had been in the habit of paying their bills when they got ready took the announcement of the change at its face value and did not even ask for credit, paying cash with no comment. Some of the older customers, who seemed to take a personal interest in the store, even congratulated the partners on the wisdom of the move and expressed surprise that it had not been made before.

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Let Them See What You Have.

(From "Hardware Age.")

The more we study merchandising methods, the stronger is our conviction that it pays to show people what you have to sell.

We like to go into the "five-and-tens" to study their business methods and every time we do go there we find something new. Every item they have to sell is on display. Furthermore, you can pick up the articles and examine them. And you never have to ask the price—it's right there before you.

In our study of these merchandising establishments we have noticed they have quite a large number of candy and confectionery counters scattered throughout the store. One is very near the entrance. Another is right at the foot of the stairs. A third is near the music counter where young people congregate to hear new pieces. And because candy is one of their fastest selling items, they have several counters of it. There are more candy counters in the store in the winter than in the summer. The wise dime store merchant changes his merchandise from one counter to another often. In searching for the new location, a customer may see something he hadn't intended buying when he went into the store.

Merchandise is always arranged neatly and attractively in the dime stores. One buys more if the displays are attractively arranged.

A certain hardware store in the central west is spending nearly 10,000 dol. remodelling its store. It is taking out a lot of its pretty show cases and substituting table counters. It is tearing out the partitions that separated one department from another. It is tearing out its hard-to-climb stairway and putting in a longer one. It is getting its merchandise out where the people can see it and feel it and examine it. It is marking everything in plain prices. It is, in short, adapting some of the dime store merchandising principles to its own store. It's costing nearly 10,000 dol., but the owner will get his money back in increased profits within a few years.

You can't make over a hardware store into a dime store. We do not advocate that you attempt it. But you can adapt one of the most important principles of the dime store merchandising to your own business—that of displaying your merchandise where people can examine it and with a plain price marked on it. There are many items for sale in hardware stores, samples of which are not on display in the office. If you sell paints, get a few of the smaller cans out on counters. Take them off those shelves. Put them where people can pick them up. Do the same with the colour panels. You'll sell more paint brushes if you'll mark the prices on them and put them out where your customers can examine them.

Your big problem is to sell. That, too, is the dime store's big problem. Display plays a mighty important part in their solution of that problem.

Foreign Exchanges.

Foreign rates of exchange in London for cable transfer on the centres and dates indicated, compare as follows:—

Par.	—	—	Apr. 21	Apr. 25	Apr. 28	May 2
4.866	New York	Dols. to £	4.85 11/16	4.85 11/16	4.85 3/4	4.85 3/4
4.866	Montreal ..	Dols. to £	4.85 3/4	4.85 1/16	4.84 15/16	4.85 3/16
25.225	Paris	Frcs. to £	124.00	124.01	124.00	124.00
35.000	Brussels ..	Bels. to £	34.94	34.93	34.93	34.93
25.225	Rome	Lire to £	94.05	86.45	91.12	94.70
12.107	Amsterdam	Florin to £	12.13 3/8	12.14	12.13 7/8	12.13 7/8
12.107	Batavia ..	Gul. to £	12.12 1/4	12.12 3/4	12.12	12.12
18.159	Stockholm	Kron. to £	18.13	18.14	18.15	18.16
18.159	Oslo	Kron. to £	18.72	18.79	18.81	18.78
18.159	Copenhagen	Kron. to £	18.21	18.21	18.21	18.21
20.43	Berlin.. ..	Gmks. to £	20.49	20.49	20.49	20.50
24	Calcutta ..	Pen to rup.	17 7/8	17 7/8	17 7/8	17 7/8
24.58	Yokohama	Pen. to yen	23 3/8	23 1/4	23 7/16	23 3/8
*	Hongkong	Pen to dol.	24 1/2	24 1/2	24 7/16	24 3/8

* Par depends on rise and fall in price of Silver.

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A Certain Seller

CALCIMO

THE ORIGINAL COLD WATER KALSOMINE

Wholesale Distributors for Victoria:

BROOKS, ROBINSON & Co. Ltd.

59-65 Elizabeth Street, Melbourne

ADELAIDE Indentor and Manufacturers' Agent wishes to secure representation of Victorian manufacturers, and is also interested in overseas agencies for South Australia. Will be in Melbourne during May. Make appointments by letter,
F. STOMP, c/o A. G. Kelley,
860 Nicholson St., Nth. Fitzroy. Tel. N'cote 1478

The Royal Visit

The visit to these southern lands of T.R.H. the Duke and Duchess of York cannot escape mention even in a trade paper. Not so much from the trade standpoint, not directly, for although as our various correspondents show the stay of these royal guests has affected the respective markets, the effects after all have been limited to more or less dislocation or a run on certain lines. Country people have poured into the cities visited, no doubt, but in all probability they have placed few orders of moment that would not have come along in any case.

Other than trade considerations determined the visit, and other than trade results are being registered in one centre after another. In 1901 King George the Fifth, then Duke of York, visited Australia to inaugurate the Commonwealth, and open the Federal Parliament in Melbourne. He was accompanied by Queen Mary as she now is, and their itinerary was a royal progress. Now their second son, the present Duke of York, with his amiable consort, is journeying round the world specially to open the new Houses of Parliament at Canberra, the Federal Capital. But like the King and Queen before them, they are doing more than the piece of duty which they undertook, and seeing more than the place where that duty had or has to be performed. Travelling by way of Panama in the fine battle cruiser "Renown," the Duke and Duchess landed first in New Zealand, where they had a hearty reception and won all hearts by their genuine friendliness and tactful consideration. So it has been in Australia. In Sydney and Newcastle and Brisbane, in Hobart and Launceston, in Melbourne and Bendigo and Ballarat, and now in Adelaide they have been welcomed in no uncertain manner by a people who approach the British in purity of stock, and surpass them in warmth of hospitality. The streets have been bedecked by day and illuminated by night, and all ages and classes and parties have united in doing honour to a gracious young couple from the Royal House at the Seat of Empire.

Although the Duke and Duchess are not trade ambassadors, who shall say that their visit and the display of loyalty to the British crown and connection which it everywhere evokes have no trade significance. These things speak of a stable constitution, an ordered national life, within which trade and commerce can play their part most effectively. Pull down the Throne, and so far as one can see the Empire would fall to pieces. Years ago General Smuts expressed the opinion that under any other head than a Sovereign it would be impossible to hold it together. And with the Empire disrupted business men in any and every part of it would find their position changed, and changed for the worse. How much worse it is impossible to say, although a look elsewhere suggests something of the disabilities under which they might have to buy and sell. On the grounds of business security and progress, therefore, not to speak of anything other, business men should rejoice in the presence of such worthy representatives of British Royalty, and the sentiment which manifests itself so unmistakably wherever they appear in these southern dominions. It augurs well for the British Crown and the British Empire. It spells freedom and opportunity for the citizen and the trader.

The Wholesaler's Function and Future

On another page a contributor returns to the oft-discussed question of the place of the wholesale merchant. Has he a rightful and permanent place, or is he only a temporary medium which commerce is destined to throw off in the process of evolution?

Something could be said for the latter view. Undoubtedly, the position of the wholesaler is becoming more difficult as the years pass. Certain manufacturers go past him in the marketing of their products. They sell to the retailer, and sometimes to the actual consumer. Then the growth of the department store, and arising out of that the combination of certain retailers for buying purposes, is affecting the wholesaler prejudicially. It is so in softgoods as well as in hardware, and that all over Australia. York-street is feeling the pressure no less than Flinders-lane. The future of both is declared to be uncertain by those best able to express an opinion. In hardware also the competition is very keen. Suburban trade especially is affected by the factors forementioned plus the operations of indent and commission agents, who are invading increasingly the preserves of the wholesale merchant.

Whatever losses they may have to suffer, or whatever adjustments they may be called upon to make, wholesalers in our opinion cannot be dispensed with. They fill too important a place in the scheme of distribution. Speaking generally, manufacturers cannot market their products economically, and should never try to do so. "Let the cobbler stick to his last" is an old proverb, no doubt, but it has modern experience behind it. In reading the "Confessions of a Capitalist," we were struck with the

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practice in this regard of the author, Sir Ernest Benn. Here is a man eminently successful in one line of business who studiously refuses to take hold of related or auxiliary businesses. Sir Ernest is a publisher, and although largely dependent, like all publishers upon printers and blockmakers, he won't touch either of these things, because he feels they can be better done by those whose regular business it is to do them. Neither printing nor process engraving is his business, and he leaves both to others. It pays him to do so, he says. So with the manufacturer. Speaking generally, it pays him to leave the distribution of his goods to those whose business it is —the wholesale merchants. They have not only the capital and accommodation, but the training and facilities for marketing goods cheaply and expeditiously.

A few years ago, one of the largest manufacturing concerns in Australia had serious thoughts of becoming their own distributors, and their intentions were abandoned not from timidity but from prudence. Inquiry convinced them that they could do better for their customers, as well as for themselves, by making use of existing agencies, and so to-day their products are obtainable through the regular wholesale channels. That, they are satisfied, is the better way of marketing their goods. It ought to be. Already handling related and competing lines, the wholesale houses can distribute the new brand more cheaply and more quickly than could the manufacturers themselves. It costs money to sell goods as well as to make goods, and those who think that the wholesale dealer is levying toll without rendering service are not well acquainted with the facts. Much present-day abuse of the "middleman" is really born of ignorance.

Inquiry Column

TRADE INQUIRIES

During the month we have supplied answers to the inquiries indicated below. Firms with whom we have not already communicated who hold any agency connection with the firms, or handle any of the lines mentioned in this section, are invited to furnish us with particulars so that our lists may be complete.

Information Wanted.

Cleveland Twist Drill Co., Cleveland, Ohio, U.S.A. —Name and address of agent wanted.

Empire Level Mfg. Co., Milwaukee, U.S.A.—Name and address of Australian agent wanted.

The Atlas Tack Corporation, Fairhaven, Mass., and St. Louis, Mo., U.S.A.—Name and address of agent wanted.

Hudson Parer Co., Leominster, Mass., U.S.A., makers of "Little Star" and other apple paring and coring machines.—Name and address of agent wanted.

Information Supplied.

"Gregory" Spanners.—Name and address of manufacturers supplied.

"Orb" Brand Copper Frame.—Name and address of manufacturer supplied.

Rolling Mill Plant.—Names and addresses of British manufacturers supplied.

Dealers in Scrap Metal.—Names and addresses in Sydney and Melbourne supplied.

Arkell & Douglas Inc., New York City, U.S.A.— Addresses in Australia supplied.

"Sun" Brand Furnace Frames.—Name and address of manufacturers supplied.

Nobel's Chemical Finishes Ltd.—Names and addresses of Australian agents supplied.

"Judge" Brand Enamelled Ware.—Name and address of agent in Australia supplied.

Galvanised Bonding Wires or Strips for Brickwork.—Name and address of agent supplied.

Wire Loops for Brick Bonding.—Names and addresses of manufacturers in Melbourne supplied.

"Abraizo" Polishing Preparation—Names and addresses of manufacturers and agents supplied.

"Sure-a-lite" Electric Torch Battery.—Name and address of firm in Melbourne holding stocks supplied.

"Ever Ready" Electric Torch Battery.—Name and address of firm in Melbourne holding stocks supplied.

The Carborundum Co., Niagara Falls, N.Y. U.S.A. —Names and addresses of agent in Queensland, and factory representative supplied.

LEGAL INQUIRIES

Both in Melbourne and Sydney we have made arrangements with lawyers of good standing in their profession to answer through this journal any legal queries addressed to us. Readers who meet with difficulties are requested to state these as clearly as possible.

Landlord and Tenant.

One of our subscribers has occupied certain premises for many years. He has no lease, but pays the rent monthly on a fixed date. What notice of vacation would be necessary?

A.: As the tenancy is from month to month the landlord is entitled to and can require a full month's notice.

Restrictive Agreements.

A Victorian subscriber purchased a business in a certain town, the vendor agreeing not to connect himself in any way with a business of the same nature in the same place. But no time was mentioned in the agreement, and the purchaser wishes to know if without this it has any real value. He also asks if the vendor could sell similar goods in the town by auction on his own account or on commission.

A.—The clause is binding. The vendor could not sell goods of the nature sold in the business on commission or through an auctioneer if they belonged to him. If, however, he started as an auctioneer he could sell other peoples' goods of that nature in the ordinary course of his business.

Right of User.

A Melbourne firm who have been selling a certain article of their own manufacture under a particular name for the past five years, but who have not sought trade-mark protection for their invention, wish to know if any other firm can legally apply the same name to similar goods. What period or extent of use would give them exclusive rights?

A.—Unless a trade name is registered under the Trade Marks Act there is no exclusive right to the use of such name, and no action can be brought for an infringement. Independently, however, of the Trade Marks Act, if a person fraudulently attempts to pass off his goods as those of another he can be prevented from doing so.

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Novelties and New Samples

Safety Razor Blades.

George Butler & Co. Ltd., Trinity Works, Sheffield, noted for their high-class cutlery and especially the "Keen" brand razor, have now come into this market, and are introducing through their Australian representative, Mr. Thomas C. Brown, 181 Clarence-street, Sydney, Butler's safety razor blades, the quality, finish, and efficiency of which may be placed in the same category as their "Keen" razor. The blades, made of the finest Sheffield steel, are in both Gillette and Valet patterns, and are double edged and sent out in attractive cartons.

Poultry Rings.

A new design in poultry rings is advised by Mr. F. S. Manning, representative of A. Huyghe, the well-known Belgian manufacturer. In addition to the usual patterns, a flat band type is available. These rings are numbered from 1 to 100, permitting a simple and common-sense system of identification for poultry farmers and breeders. The numbers are engraved on the rings, as well as being printed, to obviate the possibility of obliteration. This maker notifies that increase of business has necessitated the erection of a new and larger factory, and the installation of more machinery to cope with orders.

Mr. F. S. Manning's address is 377 Post Office-place, Melbourne, while Mr. J. B. Merrett, the New Zealand representative, is now at 165 Manchester-street, Christchurch.

English Lawn Mowers.

Mr. C. O. White, of Hardware House, Post Office-place, Melbourne, has now opened a new sample range of lawn mowers and garden appliances from Follows & Bate Ltd., of Manchester.

This firm's "Speedwell" mower is fitted with five steel cutters in the cylinder, has adjustable gun-metal bearings, and a driving handle adjustable to the height of the user.

Their "Chain-Tennis" mower is recommended for bowling greens and large lawns where good work is necessary. A simple and effective method of chain adjustment and a practical type of front roller are special features of this design.

These makers also supply tennis court markers, sprayers, water barrows, and hose reels, several patterns of folding chairs and garden seats, and also the "Ideal" garden rollers. The "Ideal" is fitted with double cylinders, and has rounded edges "turned true." This ensures straight running, and avoids any injury to the green.

Swedish Glassware and Pottery.

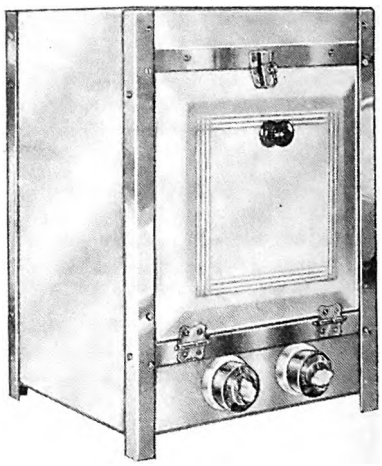
A. J. Van Dugteren & Sons, of Australia House, Carrington-street, Sydney, are displaying on behalf of Orrefors Bruks, Sweden, a comprehensive range of high grade cut crystal, plain soda quality and coloured glassware. Brilliancy and fineness of cut are the main features in the wide variety of styles embracing powder bowls, sandwich trays, electric lamp shades, salads, vases and other types of suites for household use. From an artist's standpoint the coloured glassware displayed is of singularly beautiful design. Floral and ornithological decorations in blue, brown and grey are the dominant note in their patterns. Simon Gate and Edwin Hald, two noted Swedish designers and engravers, are responsible for the production of these works of art.

Demi crystal from Orrefors Hofmantorp factory, Sweden, is well represented in another fine range comprising: "Pall Mall," (cut and etched); "Dagmar," (cut); "Capital," (cut and etched); "Linea," (cut); "Club," (plain); and "Princess," (cut).

Potteryware from Upsala Ekeby, Sweden, completes the display and a notable feature is the general improvement in the quality and design of these products.

Electric Range.

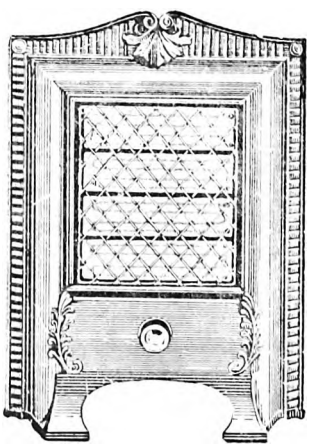
A new "Thermoleo" electric kitchenette range has ben turned out from the works of Fullerton, Gray & Co. Pty. Ltd., of 103 Flinders-lane, Melbourne.



Our illustration shows the oven, which is finished in black or grey enamel, or aluminium, with nickel plate fittings. It has three heat regulating switches, and is complete with wire tray, scone tray and meat dish. The lagging is heavy, to retain the heat and give economy in current.

Panel Type Electric Heater.

A method of room heating by electricity which is now becoming more prominent, is that obtained by the use of electric fires, having panel type elements.



Succeeding the "candle" type the "cone" type of electric heater has been most in use during recent years—the familiar "radiator" with a cone element mounted in the centre of a parabolic reflector. It is claimed by many authorities that this reflector type of fire concentrates the heat into a beam which warms only the objects it strikes, without effectively warming the room.

In the panel type, however, it is shown that the body of the fire absorbs about 80 per cent. of the heat, and then distributes "convected" heat throughout the room,

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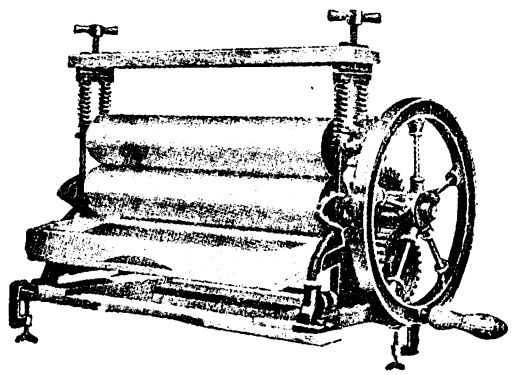
raising the temperature of the entire atmosphere.

For some years the British General Electric Co. Ltd., agents for the "Magnet" electric fires, have advocated this method of heating for the reasons stated, and now other manufacturers are taking up the production of the panel style of electric heaters.

The accompanying illustration is one of these B.G.E. fires. Finished in coloured vitreous enamel it is an example of the neatness of design and appearance embodied in this class of electric heater.

Table Mangles.

Walter A. Cox Ltd., of 195 Clarence-street, Sydney, have been appointed Australian and New Zealand representatives for Taylor & Wilson Ltd., of Atlas Works, Accrington, Lancashire, England, manufacturers of "Taywil" table and pedestal pattern mangles. Samples of all popular selling models are now held by the representatives at their Sydney address, among them the new model "Lite-Lift," which has an enamelled top, and is fitted with a patent double chain gear, securing efficiency in the



mangling of all kinds of articles without noise. When not in use, this machine may be converted into a table by merely raising a catch and giving a few revolutions to the fly wheel. Another table model is the "Little Nipper," which is made from solid wrought iron with varnished wood base and is fitted with two cast adjustable changes. It is light, yet strongly constructed, and can be easily lifted on and off the table by any adult person, while its compact and handy form commends it for small households and flats where room is a consideration. This model and several others are listed at popular prices.

Tools and Jacks.

Cheetham & White, of Cromwell Buildings, Bourke-street, Melbourne, are showing a large range of samples from Fr. Edward Engles & Co., of Remscheid and Viennyhausen, Germany.

Quite a number of new lines are now to be seen, comprising many fine engineers' and carpenters' tools, in which these manufacturers specialise. The extent of this range is remarkable, a large selection being displayed of every possible appliance. There are also many good motor tools, and a number of interesting and new goods in builders' and domestic hardware. A feature of this range is the simple yet attractive method of mounting and display, which renders the task of the buyer comparatively easy.

Engles & Co. are issuing a finely illustrated catalogue, which will be available shortly. It contains over 300 pages, is well produced, and nicely bound.

For the coming season the samples of A. N. Cooke & Co. Pty. Ltd., of Melbourne, are of interest. An excellent selection of these maker's electrical appliances is shown by the same firm. In radiators there are many fresh designs, which strike a new note in this class of goods. An important innovation is the cone shaped element, which is now simply fitted as to an ordinary plug. This permits the replacement of the element in an instant, and greatly simplifies the heating principle. The radiators are heavily insulated, to give the greatest possible heat without waste of current.

An electric kettle, devised by these makers, is now fitted with an automatic "cut out." A pin is introduced which is so arranged as to fuse when overheated, or when the water is too low for safety. This automatically shuts off the current, and will save housewives considerable anxiety.

Throughout the entire range, these electric appliances are strongly made, and well finished.

A new agency is that of Boisselot Freres, of Paris, France, who manufacture jacks and garage equipment. Under the names of "Wieland" and "Ogam," a range of jacks is offered to suit all motor purposes. The "Ogam" No. 0 type of jack is for cars up to one ton weight. Types Nos. 1 and 2 are for one and a half tons, while the "Ogam Comfort" is intended for cars fitted with balloon tyres and weighing up to one and a half tons. Several "Wieland" jacks are for different uses, the "Wieland-Luxe" being termed a "super-jack," designed as it is to meet the needs of motorists requiring the utmost in safety and strength. Another section is devoted to garage equipment, and includes motor trolleys, and special jacks for showrooms and workshops. The "Wieland trolley" jack is composed of two jacks, each of which is fixed on a movable trolley. They are constructed so as to be moved to any width required. When in use the apparatus is completely beneath the car. It appears to be an unusually efficient appliance for the purpose.

Is It True?

In the concluding chapter of his book, "London and Londoners in the Eighteen-Fifties and Sixties," published in 1924, Alfred Rosling Bennett sets out several reasons for believing that the nation has changed fundamentally, and that the future is anything but bright.

1. The Englishman's education is defective. Free education has not done what was expected of it; not fitted boys and girls for successfully grappling with the problems of practical life.

2. Englishmen are not so free as they were. To-day men are bound by laws and regulations as never before. A man's business, and even his private affairs, are the subjects of inquisition, while the trade unions interfere with the individual's right to work and the conditions under which his work shall be done.

3. Instead of being respected in foreign countries, Englishmen are generally condemned. Time was when the Englishman enjoyed a prestige amongst foreigners unequalled by any other nationality, but that time is no longer.

4. Englishmen are not so earnest. Sixty years ago life and work were taken more seriously. Navvies employed by Thomas Brassey in France and Italy evoked the admiration of the people of these countries. The interest and efficiency of these workers were something they had never seen equalled.

5. Luxury and laziness succeed thrift and industry. Sixty years ago ideas of thrift, diligence and application were inculcated everywhere, but it is so no longer. Both legislation and thrift now repel each other.

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Sundry Credits

(By J. Knibb).

Ye Sign of Ye Comma.

A certain man, so the story runs, had thoughts of leaving his fortune for the benefit of signwriters. He wished them to be trained in the art of punctuation. Assuming that the benefaction was made it must have been made in another country than Australia, for with us the signwriter still pursues his own methods of pointing. Commas and periods are dropped into his work as from a salt cellar. J. Smith is all right but when you see John. Smith or J. Robinson. Smith you wish the fellow had received a little training. Yet many notice-boards will disclose just such oddities. Here is a more astonishing sign copied literally from a city hoarding: Park your cars here for, afternoon tea on, the lawn

* * * *

The Old Lady—

As many of your readers will know the Bank of England in London, the "Old Lady of Threadneedle Street" is being rebuilt. "About time," we can hear someone say, someone who has seen the squat old lady with her blind faces or frontages. What like will she be in the days to come? This is what I read: "The new Bank of England building now being erected is being provided with elaborate defences. It will be possible, in the event of invasion or other emergency, to flood the vaults from three points, one within the bank, one elsewhere in London, and a third ten miles from London. The walls consist of reinforced concrete blocks. Any attempt to remove a single block will give an electric alarm."

* * * *

—And Her Functions.

Founded in 1694 for the better handling of the National Debt, the Bank of England is a great national institution ministering in a special way to the financial life of the country. Until 1826 she was the only joint stock bank in England and Wales, but legislation then passed sanctioned the establishment of others, and several others soon came into being. During the first hundred and fifty years or so, the issue of bank notes was a big part of the bank's business, but the growing use of cheques has changed all that. The Old Lady is still a bank of issue, printing nothing smaller than £5 notes, and once one of these is returned to the bank it is never re-issued. A new one takes its place.

* * * *

We are—Six.

In point of population, I see the Commonwealth has now passed the six millions mark. A million to each State on the average, and more coming along every year. That's the way to secure ourselves and strengthen the Empire and serve this old world. Too many of us in the cities, to my thinking, and if I had my time over again . . . . . Anyway, I hope from its new home at Canberra—away from the evil influences of Melbourne (see the Sydney press)—that the Federal Government will set itself in earnest to promote country settlement. That means more than placing people on the land, a great deal more. It means making the "land" life worth while by relieving it, as far as possible, of irksome burdens, and bringing to it, as far as possible, the amenities of urban associations. As far as possible.

Bard and Cynic.

"Now is the winter of our discontent made glorious summer by this sun of York." Certainly the visit of the Duke and Duchess has shaken us out of our phlegm, and taken us out of doors to cheer with the best of them. How hearty the cheering, how many the moving throats! People would cheer at anything, says the cynic, who condemns the whole thing as a gust of emotion unworthy of rational beings. Easy now, my dear sir. The heart is a guiding factor in human life as well as the intellect. Intangible though they be, loyalty and patriotism are among the realities.

* * * *

Business Secrets.

Sarah Gamp, you will remember, talked much of a mysterious Mrs. Harris, and Betsy Prig nearly deprived the honest woman of speech one day by suggesting that there was "no sich person." Sir Ernest Benn goes nearly as far in his scepticism regarding business secrets. "It is commonly supposed that business is one maze of secrets; a supposition that is now largely false. There is no more absurd hoax than the business 'secret,' and the idea should be knocked out of the public mind. It consists to a large extent in the gifts or innate qualities of individuals. Thus, a very important secret of success in business rests in understanding the art of employing, in the power to attract to oneself others who are willing to carry out their duties as directed with efficiency and goodwill, the one being almost as important as the other."

* * * *

Why Men Fail In Business.

Sir Ernest Benn is quite right, I believe. The things that make for success in business are open secrets. Care and prudence on the one hand, and on the other initiative and readiness to face risks or "take occasion by the hand." Ready tact and tireless industry, a grasp of principle coupled with attention to detail. A feeling for the tendencies, too. I knew a man whose success in business was largely due to this. His anticipation of market movements was almost uncanny. He knew when and how to buy. It is not because the secrets of success are hidden from them that men fail in business, but because they do not possess business ability or because having ability enough they neglect their business for something else. I knew of another man, in the hardware trade, whose business "went to pot" because he became infatuated with golf.

* * * *

Handwriting in Schools.

Both in Australia and New Zealand complaint is made regarding the penmanship of young people. From the public schools of both countries boys and girls are seeking clerical employment, whose handwriting is anything but clerkly. It lacks clearness and character. It is untidy and unbeautiful in detail and as a whole. So runs the indictment. Teachers admit that there's some truth in the charge, but say that the youth of England and America write no better than ours do. Two systems of handwriting have been tried in different places, I understand, namely, print writing and free arm writing. The print script system is said to be encouraged by many English schoolmasters, but most commercial houses in this part of the world have no sympathy with it. While the other or ordinary system promotes fluency, it is apt to degenerate as time passes. Were children taught to hold the pen properly, to begin with, I am satisfied that better results would be obtained. The trouble lies there.



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News from Abroad

Colouring Cement and Concrete.

According to an article in a recent issue of the "Manchester Guardian Commercial," considerable interest is being taken in Great Britain in the process of colouring cement and concrete, employing a number of organic dyes which are fast to light, atmosphere and water.

From the progress already made it would seem says the writer, that the building industry has an almost unlimited range of colours available for tinting concrete and other building materials. The proportion of dye to the total mix is small, and satisfactory results are obtained with one-quarter of one per cent. dye stuff to the total mass. Fragments of coloured concrete indicate that the mixture is uniformly coloured throughout. In the process the concrete is gauged with a solution of some simple derivative of the colouring matter, and on exposure to the atmosphere the dye is precipitated in a permanent insoluble form on the cement particles.

The colours used are inert to sulphuretted hydrogen, sulphur dioxide, and other constituents of the atmosphere in industrial areas, so that concrete structures coloured in this way are unaffected. The process is also applicable to the making of aggregates for such purposes as garden flagstones, vases, ornaments, sundials, monumental stones, and various similar uses. The chief use, however, would seem to be in the colouring of building materials, and the writer understands that 1500 houses in the North of England are being finished internally with coloured cement instead of cement and distemper. The cost of the process is not heavy, ranging from 2½d. a yard of concrete one-quarter inch thick up to about 4/-, depending on the colour used, the depth of shade, and the thickness of the surface rendering.

Aluminium Cartel Formed In Europe.

A recent report from the American Consul at Paris states that the negotiations for the creation of a syndicate of European aluminium producers have reached the stage of an accord. Adherents to the convention are the Aluminium Francais, the British Aluminium Co., the Swiss Aluminium Werke of Neuhausen, and the German Vereinigte Aluminium-Werke. Germany is also represented by the Bitterfelder Werke, belonging to the Banque des Metaux and to the I.G. Farbenindustrie. American interests in European aluminium companies are not involved, nor is the Norwegian aluminium industry, said to be under American control. Certain Spanish, Austrian, Swiss, and Italian producers also remain outside the cartel.

It is declared that the new organisation is merely the reproduction of its general scheme of the Aluminium Association, which functioned for two years before the war. As reconstituted, the cartel will involve about 47 per cent. of the world production.

The announced object of the entente is to adjust the production of its adherents to market needs, and above all to encourage consumption. European consumption, after considerable progress, has become stabilized with indications of decline. Among the approved methods of accomplishing the objects are elimination of competition among the members upon their respective domestic markets, a common utilization of the technical processes heretofore guarded by the different industries, and a concerted propaganda to develop the various applications of aluminium. A common commercial policy regarding export business is likewise contemplated.

It is pointed out that the European production in 1925 was 110,000 tons, of which about 22,000 tons came from Norway, while that of the United States was 70,000 tons. With the world output equal to world demand, European producers have shown uneasiness at the prospect of over supply occasioned by the construction of new or enlarged plants in France, Germany and Canada. In the desire to forestall such a condition, and to reassure consumers, the cartel enters into operation with an announced 12 per cent. cut in price, which in France, by reason of exchange recovery, amounts to 20 per cent. of the prevailing quotations. It is observed that since October last the price of export aluminium has been brought from £125 to £112 sterling per long ton, and that in Paris the price has declined from 1940 to 1650 francs per 100 kilos since July.

The agreement is to be operative for two years.

Antimony in China.

An increasing demand for antimony oxide to replace zinc in stove enamelling, both in Europe and America, and the large orders for the making of electric apparatus and radio sets have helped to raise the price over 100 per cent. This high price has naturally tended to increase the output, which will soon be sufficient to fulfil the demand from abroad, and an eventual fall in the value may perhaps be anticipated. Changsha regulates the price of antimony in the world, and it is only when prices reach a certain figure that mines in other countries may find it remunerative to start work again, but even then they will incur the risk of being underquoted by the Chinese mines. European and American prices have been somewhat at par, though America absorbs a great deal more antimony than Europe. The values, forward, in New York during 1925 have been 11 gold cents per pound in January, 9½ cents in July, and 22 cents in December, duty not included. After the Chinese New Year the Changsha market price was as high as $400, but it slumped in February, reaching bottom at $300. These prices caused great alarm to the miners and smelters in Sikwangshan, as they were almost unable to work at a profit on the small margins thus given. In May, however, foreign stocks were apparently exhausted, and buying began heavily, followed by big speculations here and the price rose again to $400. Taking advantage of the boom, several small mines were opened, which the high price of antimony made it possible to work, and the production increased towards the end of the year. This did not have the effect of reducing the price. Exports were somewhat handicapped by the low-water conditions, and, in addition, foreign consumers seemed to have imagined that the internal troubles of China, the Shanghai strike, followed by the civil war of the autumn, might lead to a cessation of the supplies. The result was a steadily increasing price throughout the autumn, which reached its highest point in December, somewhat over $750 a ton. The prospects for 1926 are very uncertain. It is improbable that consumers will continue to pay the prevailing prices indefinitely, but, unless other sources of supply begin to influence the market soon, the price is unlikely to recede very appreciably. Antimony regulus shows an export of 259,807 piculs for 1925, compared with 187,777 piculs for 1924, an increase of 72,630 piculs; antimony ore (oxide) rose from 9356 piculs in 1924 to 33,439 piculs in the year under review, whilst antimony crude increased by 50 per cent.—From the Changsha Customs Report, 1925. The picul is equal to 133⅓ lb.

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Personal and Social

Assistant Trade Commissioner.

A cable message states that Mr. Paul Sykes, British junior trade commissioner at Ottawa, Canada, has been appointed assistant trade commissioner at Auckland, New Zealand.

Change of Employment.

Since the new year, Mr. H. E. Tylor, previously with Noyes Bros. (Sydney) Ltd., has represented the hardware department of S. Hoffnung & Co. Ltd., 165 Pitt-street, Sydney, in the south and west.

Departmental Manager.

Mr. C. Trewhella, for several years manager of the hardware department for Bond Bros., drapers and storekeepers, Piangil, Victoria, has accepted the position of manager of the hardware section for Myers Bendigo Pty. Ltd.

Departmental Manager.

Mr. H. Vallance, who lately had charge of the hardware department of Bracy Ltd., Lithgow, N.S.W., resigned recently in favour of a similar position with John Knowlman & Son, Goulburn, where he succeeds Mr. Shepperd.

Appointed Managing Director.

At a meeting of the board of directors of William Adams & Co. Ltd., 175 Clarence-street, Sydney, on April 22, Mr. Daniel Couper Morrison, formerly sales manager of the company, was appointed managing director in succession to the late Mr. W. J. Newbigin.

Commencing for Himself.

Mr. K. Bassett, who has been in the employ of Edward Reece Ltd., of Christchurch, New Zealand, for a period of thirty-six years, was recently presented with a handsome leather suit case by Mr. A. E. Laing on behalf of the staff on his leaving the firm at the end of March. We understand that Mr. Bassett expects to start on his own account with some handsome agencies.

Briscoe Interchanges.

Mr. W. W. Briscoe, a son of Mr. George Briscoe, one of the London directors of Briscoe & Co. Ltd., reached New Zealand on April 4, and will spend a year or so in that country to obtain experience of local conditions. He will live in Wellington. In 1924 the same young man spent six months in the Melbourne branch, where he was very popular with members of the staff.

Mr. Alan Macneil, a son of Mr. Alexander Macneil, of Melbourne, chairman of the Australasian directorate of the company, has gone to England to gain experience of their British houses.

Trade Cricket at Geelong.

The final cricket match in the Geelong Traders' Association was commenced on April 2 between teams representing Hawkes Bros. Pty. Ltd. and Thears Pty. Ltd.

Thears won the toss and decided to make first use of the wicket. Owing to the accurate bowling and good fielding of Hawkes' team, the batsmen were dismissed for 67 runs, Smith (25) and Klein (14) being the most successful batsmen, while Armour, with seven wickets for 14 runs, carried off the bowling honours.

Bayley and Lowe opened Hawkes' innings, and when 24 Bayley was clean bowled by O'Neil. The team made a total of 116 runs, the other batsmen who did well being Collyer (19), Bradley (18), and Lowe (7). Thears' best bowler was Howard with three for 18.

With a deficiency of 49 runs Thears commenced their second innings. The opening batsmen (Smith and Keays) made a good stand, and compiled 44 runs before Keays was bowled by Armour. The remaining batsmen failed badly, and all were out for 61 runs. Collyer was the successful bowler, securing seven wickets for 14 runs (the same as Armour secured in the first innings).

With only 13 runs required to win, Lowe and Collyer opened the second innings for Hawkes, and secured the necessary number without the loss of a wicket. So the premiership came to Hawkes Bros. Pty. Ltd. on their year in the association by an easy win of 10 wickets.

Death of Mr. W. J. Newbigin.

Members of the engineering profession and of the commercial community in Sydney were shocked to learn of the death of Mr. William Johnstone Newbigin, managing director of William Adams & Co. Ltd., there. Suddenly stricken with pneumonia, he passed away at his residence, "Pevensey," Wahroonga, on April 20.

Born at Alnwick, England, on June 12, 1874, Mr. Newbigin came to Australia in 1899 as engineer-in-charge of plant supplied to the Victorian Railways Department for installation at Spencer-street. From 1901 to 1905 he was resident engineer in Australia for C. A. Parsons & Co. Ltd., of Newcastle-on-Tyne, England. He was chief of the engineering staff of William Adams & Co. Ltd. from 1906 to 1920, his headquarters being in Melbourne. In 1922 he was transferred to Sydney as managing director of the company, which position he held at the time of his death.



Late Mr. W. J. Newbigin

The deceased was a member of the council of the Victorian Institute of Engineers from 1904 to 1905; a member of the council of the Victorian Institute of Electrical Engineers from 1910 to 1912, and president of the latter institute in 1913. He was a member of the Federal Council of the Electrical

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Association of Australia from 1914 to 1919, and played a prominent part in the preliminary conferences associated with the formation of the Institution of Engineers, Australia, and at the formation of that institution in 1919, when the majority of engineering societies then existing in Australia amalgamated to form one body, he was elected a councillor, being re-elected in all subsequent years. The late Mr. Newbigin also held the office of president of the Institution of Engineers, Australia, in 1920, having previously been vice-president. He was elected chairman of the executive committee of the insitution in 1926.

Mr. Newbigin heartily supported the work of the Australian Commonwealth Engineering Standards Association, and was appointed a member of the main committee of the association as the representative of the Associated Chambers of Commerce of the Commonwealth of Australia. He was a member of the council of the Sydney Chamber of Commerce, a member of the Royal Society of New South Wales, and a member of the Australian Club. In 1926 he was appointed by the Commonwealth Government a member of the executive of the council for Scientific and Industrial Research.

The funeral, which took place at the Northern Suburbs Cemetery, was attended by a representative gathering of public and private concerns connected with engineering. Amongst those present were Mr. D. F. J. Harricks, vice-president of The Institution of Engineering, Australia (who also represented the president), Mr. J. H. Butters (chairman of the Federal Capital Commission), Mr. O. W. Brain and Mr. A. D. J. Forster (assistant Railway Commissioners), Professor J. P. V. Madsen (Sydney University), Mr. G. A. Julius (past president of the I.E. Aust., chairman of the Australian Commonwealth Engineering Standards Association, chairman of the Council for Scientific and Industrial Research, who also represented the Prime Minister and the Commonwealth Government), Mr. A. J. Gibson, Mr. W. Poole, Mr. W. H. Myers (chief electrical engineer, N.S.W. Railways), Dr. G. A. Waterhouse (Linnean Society of N.S.W.), Dr. Gordon McLeod, Mr. J. H. Slater, Mr. W. H. Locke, Mr. William Adams, Mr. C. G. Calman, Professor Kenner, Professor J. D. Stewart, Professor H. G. Chapman, and many others.

Death After Long Illness.

Mr. Harry Thorpe Seymour, well known in commercial circles of Sydney and suburbs, died after a long illness, on April 17, at the age of 56 years. The founder of H. T. Seymour Ltd., universal providers, Marrickville, he was managing director of that company until his retirement four years ago. Mr. Seymour first opened a joinery and hardware business in Marrickville, and when he saw the rapid expansion of that suburb, established a large general store at the corner of Marrickville and Victoria-roads. He was also a prominent building contractor, and some of the buildings on the Sydney show ground and Randwick racecourse were erected by him. When war broke out, he volunteered for service, and held the commission of lieutenant. While on service he was gassed, and this undermined his health and gradually wore him down.

Despite his many business activities, the deceased gentleman found time for movements which were started for the advancement of Marrickville, and at the time of his death was patron of the Marrickville Chamber of Commerce, and a trustee of the Marrickville Anzac Memorial Club. He was unmarried.

The funeral at the Waverley cemetery was largely attended by personal and business friends.

Instructing New Employees Properly.

("The Mercantile Gazette of New Zealand.")

While it is essential that every endeavour should be made to secure the right type of employee at the start, and to provide conditions that will attract and retain capable assistants, it is equally important that every new worker should know exactly what he is to do, how he is to do it, and why. Every employee should be regarded as an investment, quite as real as any other investment, and the question of its worth depends on its use by the management. Many managers take extreme care when selecting staff, and pay due attention to the ability, character, personality, and health of the people whom they employ, but having done this they take along this selected material, and in a prefunctory sort of way, introduce the new man or the new girl to a departmental head, who, in nine cases out of ten, conveys little or no real instruction and direction to the latest recruit. Quite frequently the new man is loaded up with numerous verbal instructions, with the result that he forgets most of them. He has to depend on other employees to help him out, and not infrequently on the official he is to replace, sometimes a man who has proved inefficient and is being discharged. Is it any wonder that the course of training under such conditions results in waste of material and time, not to mention expensive errors?

Each new employee should be given a thorough training in the handling of the work to which he will be allotted. The general policy and scope of the business should be explained and his relation to the concern as a whole made clear. If he is to be placed in a responsible position he should, whenever possible, be taken through the entire factory or office, so that he can get an idea of the various activities of the business, and the relation of his duties to that of others. He will then gain an idea as to the importance and scope of his own services.

In some concerns an office manual is employed. This is a book describing in detail every duty and every operation required in the office. Its purpose is to furnish every worker in the office with accurate information as to his authority, the work he has to do, exactly how that work has to be done, and his relation to the force as a whole, thus minimising verbal explanations which are rarely complete. It is advisable to divide the office manual into two sections; first, general information as to the policy and scope of the business, together with rules and regulations, applying to all employees alike; second, specific instructions as to the routine of each department.

The use of an office manual possesses distinct advantages, especially where the staff is large. The employees are impressed by the policy of the concern, and obtain not only full information as to their own duties and responsibilities, but realise what is expected of those with whom they work. This promotes sympathetic and hearty co-operation. The work involved in such a process may seem expensive, but it is really most economical. Apart from any other factor, a worker by this method becomes more productive in a short space of time, whereas in the usual haphazard style he may get through after a fashion, but as often as not has to be replaced by someone else, who may or may not become proficient.

Employees in the first instance should be given full and explicit written instructions as to their duties, and in addition should be made acquainted with the best way of preparing them. The science of eliminating waste motion has been well developed in factories, but is not generally applied in offices where it can be equally successful. It will pay to closely study the work of each employee, and to ascertain the best way of performing the duties. Thereafter the data should be filed and each worker taught the new method.

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Interstate General News

New Zealand Iron Works.

After running for seven months, the blast furnace of the Onakaka Iron and Steel Co. Ltd., at Golden Bay, was blown out for Easter. There will be no re-lighting of the furnace until the stocks of pig iron are substantially reduced.

Safes Burgled.

Two large retail stores at Wagga, N.S.W., those, namely, of D. Copland & Co. and T. Edmondson & Co. Ltd., recently experienced rather startling visits from burglars. In each case the safe was forced, and a substantial amount extracted. It is learnt, however, that suspects have since been arrested.

Artificial Leather from Celluloid.

Extending the services now rendered in Australia and New Zealand by the Nobel interests, a company, entitled Nobel Chemical Finishes (Australasia) Ltd., is to be registered in Victoria, and a large factory erected near Melbourne for the manufacture of artificial leather and similar products. Most of the £250,000 capital will be found by Nobel (Australasia) Ltd., but other British and American firms concerned in the manufacture of high explosives will have an interest in the new venture. Plans for the proposed works have been prepared, and the work of erection will be commenced at an early date.

Business in New Zealand.

Under date April 8, the following paragraph appeared in a New Zealand paper: "One of Dunedin's leading merchants said to-day that his accounts were never cleaner than during the first quarter of this calendar year, and that country storekeepers are meeting their engagements promptly. He added that though merchants have purposely lightened their stocks, and retailers are mostly buying only for immediate requirements, in anticipation of a slump, he can find no sign of the slump actually appearing. Everybody is operating cautiously, but he has a firm belief that business is sound, and will soon brighten up again."

Australian Population.

A statement issued on April 13 by the Acting Commonwealth Statistician (Mr. J. Stonham, M.A.) gave the following result:—

New South Wales	2,347,781
Victoria	1,711,827
Queensland	882,193
South Australia	566,394
Western Australia	378,746
Tasmania	214,754
Northern Territory	4,921
Federal Capital Territory	3,898
Total	6,110,514

Of this total 3,122,581 were males, and 2,987,933 females. The total increase during the year was 118,430, made up of 62,266 males and 56,164 females. Of this total increase the excess of births over deaths accounted for 76,210, while the excess of arrivals over departures accounted for 42,220.

N.Z. Railway Workshops Contracts.

The coal strike at Home last year made it impracticable for the contractor whose services were engaged by the Government for laying the foundations at the new Hutt Valley Railway Workshops, to proceed with the work, and consequently fresh tenders were invited recently. The contract has now been let to Keeble & Barnes Ltd., of Wellington, at a price of about £10,000. The tender of Sir William Arrol & Co. Ltd., the engineering firm which has the contract for the new railway workshops at Petone, has been accepted, at £11,000 for the erection of offices, lavatories, and oil stores at Petone. A similar tender from the Hansford & Mills Construction Co. Ltd. has been accepted in connection with the workshops at Otahuhu, Auckland. The Lower Construction Co., of Dunedin, is to conduct the erection of a social hall at the Hillside Workshops, but the contract price has not been disclosed.

British Trade Exhibition in Melbourne.

Arrangements have been completed by the Federation of British Industries, London, in conjunction with the Australian Association of British Manufacturers and Their Representatives, for the holding of a British trade exhibition in Melbourne in 1928. Opening on February 23 next year, the exhibition will continue for six weeks, this period including the Easter holidays. The whole of the Exhibition Buildings and grounds have been leased for the purpose.

The morning sessions will be devoted to trade attendances, and the afternoons and evenings to the public. In this way both traders and consumers will be reached. An appeal is made to the representatives of manufacturers to co-operate with the committee for the purpose of arranging special trains to bring Interstate visitors to Melbourne, and also to discuss details as to erection of stands and other necessary matters.

Exhibits will be confined to manufacturers within the British Isles, other Empire manufactures not being received. Not only so, but British motor vehicles will be excluded from this display owing to the fact that other opportunities are available for this department of British industry.

Messrs. H. W. Harrison and L. A. Saunders are the joint secretaries, and the offices of the committee are at McEwan House, Melbourne, and 1 Bond-street, Sydney.

Victorian Hardware Club.

At a smoke night in the club rooms on April 26, members had a very enjoyable time. There was a good attendance of members.

The principal feature of the programme was a lecture by the club president, Mr. J. G. Black, on his trip through South Africa. The visitor described in a most attractive way the leading places of interest, including the Victoria Nyanza and Zambesi falls. A selection of the fine lantern slides gave the audience a glimpse of the scenic wonders of these beautiful localities. The lecturer chattily described each picture so as to give quite an intimate idea of the conditions of life, and the outlook of the people in that country. Another place of especial interest was the Kimberley diamond field, which Mr. Black was able to visit.

Members expressed their appreciation of the lecture in no uncertain manner.

An excellent musical programme was rendered during the evening. The artists were: Messrs. K. Impett, H. J. Slattery, C. J. Parnham, Herman the Conjuror, Neil McInness, and Percy Prout at the piano.

The officers are pleased with the progress of the club's affairs. All the available space for permanent tenants is now let, and interstate representatives are patronising the sample rooms freely.

The club is now becoming settled in its new home. Nominations of new members are coming along in satisfactory numbers. Only 150 additional members are required to make the institution a financial success. It was anticipated that it would take three years to establish the affairs of the club on a solid basis, and the committee are pleased to find matters are improving much more rapidly than they expected.

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Commonwealth Tariff Decisions

The following decisions of more or less interest to the hardware trade have been made during April. By way of explanation it should be mentioned that the double number on the left of each entry represents the tariff decision number, while the number to the immediate right is the tariff item, and the date following (18/3/27, and so on) the date on or from which the new decision took or takes effect:—

Celluloid—

27/228 Strips .. .. Free Unspecified. 4/4/27

Clocks—

27/229 Escapements, Clock, Lever Balance, for Automatic Time Switches. (By-law No. 74 (Consolidated By-laws 1927.) 415a (2) 18/3/27

Note.—T.D. 25/53 is to be cancelled.

Machinery, Machines, etc.—

27/240 Boilers—
High Pressure Parts, viz.:— 404 14/2/27
Cross Boxes
Drum Heads (or dished ends)
Headers, Staggered
Mud Drums
for use in the manufacture of Water Tube Boilers, under security. (By-law No. 139.)

Note. — The reference to Cross Boxes for Water Tube Boilers in "Guide," page 185, and T.D. 23/525 are to be cancelled.

27/251 **Bismuth** in ingot or granulated form Free Unspecified 11/4/27

Electrical Appliances and Materials—

27/259 Transformers, imported with and for use with Voltage Regulators. (By-law No. 155.) 415a (2) 27/1/27

Iron and Steel—

27/260 Bars—
B.B. Iron, for use in the manufacture of Chain (under security). (By-law No. 157.) 404 7/1/26

Iron and Steel—

27/261 Bars—
Steel, mild, copper alloy, for use in the manufacture of Railway Ballast Waggons (under security). (By-law No. 153.) 404 2/8/26

Note.—By-law No. 71 (1927 Consolidation) is to be amended by deleting therefrom the reference to Bars, Steel, mild, copper alloy, etc., for use in the manufacture of Railway Ballast Waggons, and T.D. 26/774 is to be cancelled.

Machinery, Machines, etc.—

27/262 Blowers, high pressure, of the "Roots" pattern. 176(f) 11/4/27

T.D.'s 24/714 and 25/480 are to be cancelled, and By-law No. 25 (1927 Consolidation) is to be amended by deleting therefrom the reference to Blowers, high pressure, of the "Roots" pattern, but any such Blowers which were in direct transit to Australia on 11th April, 1927, may be admitted under Tariff Item 174. (By-law No. 154.)

Machinery, Machines, etc.—

27/264 Shafting, Steel, Bright, for use in the manufacture of Chain (under security). (By-law No. 158.) 404 3/2/26

Machinery, Machines, etc.—

27/266 Testing Machines—
Rubber (vide By-law No. 25 (1927 Consolidation), Rubber - working Machines). 174 ..

Note.—The reference to "Testing Machines, Rubber. For testing tensile, etc.," in "Guide," page 229, is to be cancelled.

Pots—

27/268 Pouring, for inserting a uniform amount of rubber in brushes during manufacture. (By-law No. 160.) 415a (2) 1/3/27

Vehicles and Parts thereof—

27/269 Motor Vehicles — The reference to Truck-Tractor (Clark) Chassis in "Guide," page 396, is to be cancelled. .. ..

Cordage, Threads, and Twines—

27/273 T.D. 27/56 having reference to Wire Rope, Steel, Flattened Strand, etc., is to be cancelled. By-law No. 64 (1927 Consolidation) is to be amended by deleting therefrom the reference to steel wire rope, flattened strand, for use in the haulage of timber, under security; but any such steel wire rope as was in direct transit to Australia on 19th April, 1927, may be admitted, under security, under Tariff Item 388 (a). (By-law No. 167.) .. 19/4/27

Iron and Steel—

27/277 The reference to Bars—Steel (Boiler quality), for use in the manufacture of Locomotives, under security, in "Guide," page 161, is to be cancelled. By-law No. 71 (1927 Consolidation) is to be amended by deleting therefrom the reference to Bars, steel (boiler quality), for use in the manufacture of Locomotives, under security; but any such steel bars as were in direct transit to Australia on 19th April, 1927, may be admitted under Tariff Item 404, under security. (By-law No. 161.) .. 19/4/27

Iron and Steel—

27/278 Plates and Sheets—
Plain, unpolished — T.D. 25/527, as amended by T.D.'s 25/575 and 26/381, is to be further amended by deleting therefrom sub-paragraphs "(6)" and "(7)" and substituting therefor the following:— .. 19/10/25

(6) Of gauges 28 and 29 (B.G.) if exceeding 38 in. in width, or if over a total area of 24 square feet.

(7) Of 30 gauge and thinner, irrespective of size.

(By-laws Nos. 162 and 163.)

By-law No. 71 (1927 Consolidation) is to be amended accordingly. (By-law No. 163.)

Machinery, Machines, etc.—

27/279 Engines—
Petrol Engines—
Motor, for use in the manufacture of Air Compressor Plants (under security). (By-law No. 171.) 404 22/1/26

Machinery, Machines, etc.—

27/280 Sueding Machines. (By-law No. 166—Textile-working). 174 15/11/26

Wire—

27/284 Iron and Steel, Galvanised, No. 19 gauge (I.S.W.G.) and finer, for use in the manufacture of Woven Wire (under security). (By-law No. 169.) 404 19/4/27

Note.—The reference to Annealed Iron, etc., in "Guide," page 402, is to be amended by deleting therefrom the following:—"and Galvanised Wire, 16 gauge and finer." By-law No. 71 (1927 Consolidation) is to be amended by deleting therefrom the reference to Wire, galvanised, 16 gauge (I.S.W.G.) and finer, for use in the manufacture of Woven Wire; but any galvanised wire which was in direct transit to Australia on 19th April, 1927, and which, but for this decision, would have been admissible under Tariff Item 404, may be admitted, under security, under that Item.

Wire—

27/285 Iron and Steel, Galvanised, for use in the manufacture of Wire Mattresses (under security). (By-law No. 168.) 404 31/8/26

Iron and Steel—

27/287 Billets, Steel, over 15 inches in diameter, for use in the manufacture of Sugar Mill Rollers and Tail Bars for such Rollers, under security. (By-law No. 172.) 404 15/2/27

Note.—T.D. 24/541 is to be cancelled, and By-law No. 71 (1927 Consolidation) is to be amended by deleting therefrom the reference to "Billets, Steel, etc., for use in the manufacture of Sugar Mill Rollers."

Traps—

27/291 Automatic, metal, used in shooting matches, for throwing into the air, by tension being applied to a spring, composition discs or birds (known as targets). 208(a) 26/4/27

Mandrels—

27/297 Steel, case-hardened, polished, rustless, hollow, for use in the manufacture of rubber hose. (By-law No. 176.) 415a (2) 22/3/27

Paints, Colours, Varnishes, etc.—

27/298 Paris White, for use in the manufacture of Putty, under security. (By-law No. 177.) 404 2/11/26

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Are the Days of the Wholesaler Numbered?

By Onlooker (44/204)

Quite recently, one of the Melbourne dailies brought out the above old scare lines, dusted up-to-date with a general attack principally levelled at the Flinders-lane warehousemen. I say, "old scare lines" advisedly, because this subject crops up as regularly as the census, and at shorter intervals. It is rather regrettable to see a daily paper toadying to public sentiment in belittling the "wicked parasitic" wholesaler, while the manufacturer is likened to a "kindly winged creature."

Australian hardware men have yet to feel the full effect of the "neway" American methods. Chain stores, mail orders, house to house canvassing, retailers group buying, manufacturers' specialty salesmen, all these are still in a very small way here in comparison to other countries. But a beginning has been made, and the question arises, "What steps can a wholesaler take to combat this competition?"

It has been the writer's privilege to peruse some very interesting correspondence from the National Hardware Jobbers' Association of the United States of America, to the general secretary of the Federated Hardware Merchants' Association of Australia. This went to show that the problems in the United States are practically of the same nature as those which have to be faced by the wholesale trade in Australia.

The American associations—there are two of them—stand for efficient methods of distribution, and the manufacturers recognise that the wholesaler has facilities beyond those within the reach of the manufacturers themselves. There is, therefore, a very close co-operation between the manufacturer and the wholesaler, although the wholesaler acknowledges that the manufacturer has a perfect right to distribute his merchandise in any way that he deems advisable. To quote one of the phrases used by Mr. J. T. Fernley, secretary of the National Hardware Jobbers' Association: "The manufacturer should not attempt to carry water on both shoulders by selling to wholesalers and then going out and soliciting business from the retail dealers, or through other sources than the wholesaler."

Notwithstanding the fact in America there are catalogue houses, chain stores, and departmental stores, who break down prices of established lines to further the business in other departments, the wholesale houses in each State or large centre are still of considerable value to the manufacturer.

There is no concerted action on the part of the wholesalers in America to maintain prices, or to use their influence as an association to control the price or business policy of manufacturers. Manufacturers in the United States work in very close harmony with the wholesale distributors, and most manufacturers of high grade goods still prefer to do the main portion of their distribution through the wholesale hardware houses.

Similar problems are now confronting the Australian wholesalers. The big difficulty of the older established houses is to keep up returns. For his smaller buying the retailer gives three main reasons:

a.—Decreased sales, due to customers patronizing the city departmental stores, or co-operative buying concerns.

b.—Buying direct from manufacturer or specialist.

c.—Bigger number of wholesalers waiting on him for orders.

These reasons are very ably dealt with by Mr. O. H. Cheney, the vice-president of the American Exchange Pacific National Bank at New York, who, in writing on this subject to an American finance journel which has a private circulation among U.S.A. bankers and commercial men, asks this question: "Why does the wholesaler find himself so generally in a precarious position?"

His answer and criticism is as follows: "Each line has its own causes, and each individual his own in addition. Most frequently he will ascribe his troubles to the following:

"a. Years of constant criticism by business men, economists, government officials, legislators and consumers, all insisting that the wholesaler is a useless and costly middleman.

"b. The growing feeling by manufacturers that they can sell more, and make more profits and control their outlets better by selling direct to retailers.

"c. The growing feeling by some manufacturers (and wholesalers) that they can reduce overhead, cut prices, and increase sales by eliminating the retailer and selling direct to consumer, either by mail or through canvassers.

"d. The growth of the chain store idea—the ability of retail outlets to buy direct from the manufacturer on an even better price basis than many an average wholesaler.

"e. Group-buying by independent retail outlets, as in the department store and grocery fields.

"f. Hand-to-mouth buying by retailers, which tends to leave the wholesaler 'holding the bag.'

"g. Speedier deliveries due to better railroad service and factory-to-store service by trucks, which, in many cases, bring the manufacturer almost as close as the wholesaler to the retailer.

"What is the wholesaler's answer to these charges, new developments, and overt acts against him? He says (or rather he could say, as some manufacturers are saying for him), that:

"1. The wholesaling functions of selling, warehousing and financing are still necessary—in some ways even more necessary now than ever.

"2. Instead of being a distribution expense the wholesaler is an economy, as he can distribute the products of a large number of manufacturers to a greater number of retail outlets.

"3. The manufacturer will realize, and in some cases is already realizing, the high cost of direct selling to the retailer—the great expense of maintaining branch offices and warehouses; of keeping a sales force, and backing it with national advertising; filling many small orders; collecting many small bills; extending credit.

"4. The retailer will realize, and in some cases is already realizing, the high cost of direct buying—the difficulty of getting service; interviewing many salesmen; placing the innumerable separate orders with many manufacturers instead of one order with one wholesaler; receiving many shipments and paying many bills; badly balanced stocks because each manufacturer is interested in selling as big an order as possible—as against the disinterested, helpful, all-round advice of the wholesaler.

"5. The direct-to-consumer manufacturer will realise, and is in some cases now realizing, the heavy cost of keeping canvassing forces up to strength. Many who have entered this field are now finding the limitations of the type of product which can be sold in this way, and the markets which can be effectively and economically reached.

"6. The mail-order houses have long ago found similar limitations to their operations. There is more than passing significance in the recent entry of some of the large mail-order houses into the retail store field.

"7. Chain-store systems have grown so rapidly that they are beginning to crowd each other out.



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Their warfare is making profits less certain. The independent retailer (the wholesaler's customer) is coming back stronger than ever because he has learned to be a better retailer, and to convince his customers of his advantages.

"8. Group-buying requires the establishment of a buying organisation, which means expense and necessary experience—which the wholesaler already offers.

"9. Transportation service is speedier—but it is also dearer, especially on small shipments. As long, for instance, as the shoe retailer and customer are willing to pay shipping costs on small lots sent by parcel post from the factory, the wholesaler loses his argument. But there may come a time when the nearby wholesaler's stocks, without high freight charges in the cost, may become very desirable and useful."

As to the courses open for the wholesaler, Mr. Cheney has many suggestions. He realises that in the long run the wholesaler may be economically vindicated, although before that his creditors may have had to meet. Although the wholesaler may really be the most economical medium of distribution, it is difficult to prove it. The apparent logic of "save money by buying direct" is very appealing until it is thoroughly analysed. The functions of the wholesaler are warehousing, financing, and selling, yet within these functions, there appears a wide range and variety of possible developments. In the effort to assure his well-being, Mr. Cheney mentions the advisability of considering the following methods by the wholesaler:

a. The control of the source of goods, and to set up manufacturing to meet the manufacturer's competition.
b. The control of outlets through ownership or control of chain or retail stores.
c. The development of private brands.
d. If in danger of being "swamped" by the thousands of brands offered, by confining attention to one particular brand in each price and line.
e. The reduction of the cost of goods by joining in a group-buying plan.
f. By acting as agent in financing retail sales on time-payment plans.

How does this American banker's remarks apply to the Australian wholesale house? Being in daily touch with the oversea agent, the local manufacturer, and the suburban retailer and country storekeeper, and having discussed the matter with all of them, I am much amazed at the diversity of opinion which prevails.

With few exceptions, oversea agents are averse to supplying information of their principal's products except to what are styled "legitimate" importers. But legitimate importers may include the wholesaler, the departmental store, the office of the chain store or co-operative buyer, in fact, anybody who has an oversea buying house or agent. In an effort to obtain "ground floor" prices, retailers are often anxious to indent their requirements.

I know of one case where a retail ironmonger entrusted an indent order for English enamelled ware to a local indent commission agent, and on receipt of his shipment, was astonished to find that his landed cost was within 5 per cent. of the wholesalers' selling price for small quantities. Perplexed at this, he showed me his invoices, and comparing his experience with my firm's own shipments, I was enabled to point out his consignment was comparatively small, that being packed in cases instead of 400 gallon tanks, had cost him at least 7½ per cent. more, that being under a certain amount in invoice value, the price to him by manufacturer was "at factory," whereas our larger consignments were always f.o.b., and the carriage to port, dock charges and cartage at port would equal well over 4 per cent. of cost. A few other discrepancies were pointed out, and after a heart to heart talk, this retailer is now quite satisfied to buy "hand to mouth" supplies from the wholesaler, thus enabling him to keep a better assortment of stock without tying up his money.

Many Australian manufacturers have yet to be educated to economic conditions. Wholesalers can give many instances of small manufacturers with a new line "double banking," by loading the wholesaler with a good stock of his product, and then going around the city, suburbs, and country filling up the retailer with the same line at the same price. When the merchant finds he has been dumped with the goods and unable to obtain satisfaction from the supplier, the usual course adopted is to clear the stock below cost, and thus upset the market on this particular line. Then follows a hunt round for another manufacturer who can make up a similar line, often at a better price and better value, and put this new line out in competition.

But most Australian hardware manufacturers do realize the economic advantages of distributing their goods through the wholesaler, and the retailer is slowly yet surely realizing the wholesaler's position. Here is an instance of this. A retailer was buying 90 per cent. of his requirements from one manufacturer and the other 10 per cent. from a wholesaler; but after a comparison, he transferred his buying to the wholesaler. This wholesaler was carrying a complete range of Australian and imported. From overseas, the retailer selected three different manufacturers to supply different lines, and over eight different manufacturers supplied his wants for the locally made lines. In addition, this wholesaler was financing a small factory, and bought up the whole of its output. The result was each line was a "gem," and the wholesaler was enabled to offer better value than any manufacturer going direct to retailer.

I know of some manufacturers being forced to go direct to the retailer because the values offered were not competitive for the wholesaler to handle. It naturally follows that the retailer recognizes also the value is not there, and a manufacturer may then be forced to advertise a "house to house" canvass or initiate a "direct from maker to user" campaign in an effort to place his goods.

Standardization, or schedule fixed prices, is a factor beneficial to both wholesaler and retailer. To the wholesaler, in that it assures him a workable margin of profit, and to the retailer in that it enables him to know his competitor is buying at the same rate, and that both he and his competitor will be selling at the same price as the larger city departmental stores. The success of fixed schedule prices is only assured when the schedule is fixed and policed by the manufacturer.

Dealing with the wholesaler in a general way, I feel that, despite all modern competition of the present and any proposed fantastic schemes of the future, that the wholesaler will continue to exist: for even if the present wholesalers were crowded right out, their functions will never be abolished, but will be taken over by other factors in the industry, for the cost of warehousing, financing, selling and delivery can never be escaped.

And for the individual case, it is the wholesaler, with an efficient organisation, competent buyers, and enthusiastic salesmen, who can handle orders systematically, and give a prompt despatch, who can be judicious in his credits, and above all, who can give "service" to his customers who need have no fear of the future.

For a good wholesaler should not find it necessary to endeavour to camouflage his identity either as a manufacturer or retailer. If he really acts as a middleman in every sense of the word, instead of an innocent bystander or simply a profit grabbing opportunist, he will not only render a real service to all in his industry, but will inevitably strengthen his own position.

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Australasian Metal Markets

All prices are quoted for approved brands, duty and other charges included.
For English prices, see The Month's Cablegrams, on page 174

Sydney, May 2, 1927.

Trading conditions for April were not particularly bright. The Easter holidays considerably interfered with the normal conditions of trade, and in addition we experienced heavy floods, both in the metropolitan and country areas. There was considerable interruption with trading conditions during the visit of the Duke and Duchess of York. The heavy rains experienced during April gave little compensation, for although there was a demand for corrugated sheets and fencing wire, stocks were not heavy, and supplies coming forward were bespoken. Some transactions are reported in mild steel, and there has been a healthy demand for stocks to arrive. Tinplates are held on spot in sufficient quantities to cover requirements, and with the firm tendency overseas some good bookings are reported for indent. Jute fabrics have not shown much activity, but prices quoted are slightly higher on all products in comparison with the market prices of last issue. Tubing is quoted higher this month than at last issue. On the contrary, lead pipe shows a reduction compared with prices listed in April. Some interhouse transactions in parcels of imported linseed oil were reported. There would appear to be plentiful supplies of resin held both amongst the merchants and consumers, but turpentine has gone into consumption in fairly large quantities although the price has not been affected. There would appear to be sufficient imported whitelead on spot to cover requirements. At time of writing the outlook for the month is brighter, and inquiries are reported which are well spread over general lines. Suburban business has not been quite so good with the smaller storekeepers, but there are no serious aspects affecting the position.

Auckland, April 25, 1927.

Hardware business, both retail and wholesale, in town and country, is very much the same as the previous month, and shows little or no improvement. Some houses have been engaged in stocktaking, and as the banks balanced at the end of March, it was expected that this month, even with the Easter holidays, would open with brighter conditions, but buyers, particularly in the country, are observing caution, and orders are mostly for small quantities to satisfy immediate requirements. In the city there has been a fair demand for bar iron and steel, and prices remain unchanged. Steel plates for benzine tanks commanded a fair amount of attention. The price has been reduced to £21/10/- per ton basis for ordinary quantities. For quantities of two-ton lots and over holders are prepared to accept even lower prices. Corrugated and plain galvanised sheets have been reduced to 20/- per ton, but sales do not appear to show any increase. Stocks of water pipes have been heavy, and fair sales are reported. Holders in some instances have been induced to accept lower prices than those listed for parcels, the object being to reduce stocks. There has been a fair demand for fencing wires, attention being given more particularly to English brands; prices are unchanged. Pig lead is firmer at £36/10/- per ton, and sheet lead at £44. Linseed oil has been selling freely to meet the demand of the painting trade. Prices are unchanged. Turpentine is quoted at 7/6. White lead has been selling freely at prices as per list.

Christchurch, April 16, 1927.

Business in Christchurch continues to be very slack, although the Easter holidays were responsible for a temporary flutter in travelling equipment. The continued drought is seriously affecting the farming districts, and the prospects of winter feed and crops are not promising. In fact, if rain does not come very soon the position will be serious. While the recent harvest was distinctly good, lower prices had to be accepted, and the spending power of the farming community seems to have been curtailed; at any rate, the farmer is spending very little in the city. There is a considerable amount of unemployment about still, and prospects for the coming winter are not very rosy. Prices remain much as last month. Corrugated iron, Orb brand, is selling to builders at £34 basis of 8 ft., and cheaper grades at £31. Bar iron is £24 basis, and shoeing £25. Sheet lead has a rising tendency. Wire nails are in good supply at £22/10/- basis of 4 x 7 gauge.

NEW ZEALAND PRICES.

	Duty.	Auckland. Apr. 25	C'church Apr. 16	Dunedin. Apr. 19	Wellington Mar. 15
IRON—					
Bar—		£	£	£	£
English ..	Free	21	24/	24/	24
Shoeing ...	,,	23	25/	23/	25
Steel ...	,,	21	20	23/	18/6 to 25/
Pig	,,	8	10/6	10/6	9/- to 10/-
Plate ...	,,	21 10/	25/	25/	24/6
Hoop ...	,,	24/, 35/	33/	32/	33
Sheet, Blk.	,,				
to 20-g. ...		23 10/, 24 10/	27/6	28/	26/6
22 & 24 g.		25 10/	29/6	30/	26/6
Galv. Cor.—	2/-				
First ...		31	34/Builders	33/	33 10/
Second ...	,,	30	31/ ,,	32/	32 10/
Local ...	—	31	...	...	...
Do., Plain	Free		...		
24 & 26 g.		32/, 33/	33/, 35/	40, 48, 44	32 10/
Pipe—Galv.	Free	45%	42½% off	42½	40% off
,, Black	,,	50%	47½% off	50% off	50% off
Wire—	,,				
Galvd. ...	,,	16, 18	17/6	16/6	17/6 to 18/6
Black ...	,,	16/6	16/6	15/6	
Barbed ...	,,	21, 23 10/	22/6 to 23/6	21/	25/6 to 26/6
Nails ...	2/4/-c	20/6	22/6	2110/ to 23	23
,, N.Z.		20/6	...		23
Lead—Pig	Free	34/6	45/	45/	40/
,, Sheet	,,	44/	52/6	60/	60/
,, Shot	10/-	75/	80/	80/	75/
Tin—Ingot	Free	3/5	3/4	3/2	3/7
,, Plates	,,	35/6, 48/6	50/ I.X.	40/	37/6
Zinc—Sheet	,,	7½d. lb.	9d. lb.	8½d.	8¾d
Quicksilver	—	...	6/61b	...	...
Cement—					
Imported	1/-cwt.	...	22/6 cask	...	...
Local bag	—	5/8	6/10	6/	5/11
Slates ,,	Free			...	
P. of Paris...	,,	27/6	32/6	26/6	27/6
White Lead	10%a.v.				
Best ...	—	60/	59, 6 to 62/6	63/ to 65/	69/ to 70/
Second ...	—	59/		...	68
Blst. Powder	Free	1/8	1/9	1/7	1/8
Rope— ...	20%				
Manila, Star	—	111/	111/	116/	111/
,, O. ...	—	107/	107/	112/	107/
Flax, N.Z. ...	—	81/, 88/	88/	88/	88/
Cornsacks ...	Free				
44-in. ...	—	...	...	13/3½	14/6
46-in. ...	—	...	14/9	13/	14/9
48-in. ...	—	15/	15/	13/6½	15/
Woolpacks ...					
Full ...	Free	5/6	5/3	4/4	5/3
Oils—					
Lins'd. raw	6d.	5/3	N.Z.4/8Eng4/11	5/	5/9
Castor ...	Free	5/-	6/	5/3	5/6
Colza ...	,,	7/9	8/	8/-	7/4
Kerosene	,,	14/9	14/9	14/9	14/3
Turpentine	,,	7/6	7/6	7/6	7/6 to 8

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Dunedin, April 19, 1927.

Business at present seems completely at a standstill, influenced by various things, including the Easter holiday vacation. All business premises are closed for the term, while staffs are mostly absent on pleasure bent. The future, however, holds prospects of better things, there being several important building contracts on the card, including the erection of the Town Hall. For this big undertaking the foundational preparations are already well in hand. There continues also a steady demand for the erection of private residences, especially in the suburbs. Reports concerning wool and grain values are favourable, and should have a steadying effect, although unemployment is still with us. Latest quotations leave little for comment. Plate iron has been advanced to 25/-, and black sheets have also risen to 28/- up to 20 gauge, while galvanised corrugated has been reduced to 33/- for first and 32/- for second. Pig lead has been advanced from 40/- to 45/-, but sheet remains at 60/-. Castor oil is reduced to 5/3. Corn sacks are 14/6 for 44 in., 13/- for 46 in., and 13/6½ for 48 in. Woolpacks, full size, are 4/4.

Brisbane, April 29, 1927.

April has proved a very disjointed month for the hardware trade owing to the advent of Easter and then the arrival of the Duke and Duchess of York. The wholesale houses report very patchy business, but retailers did pretty well during the royal visit. Heavy hardware has been slow with stocks in good supply and prices unchanged. Bulk lines have also been quiet and stocks are heavy. No alteration of prices is noted. Station supplies have been moving freely, getting ready for the shearing season. Fencing wires have been in strong demand. Stocks of all kinds are in full supply and prices unchanged. Wire netting has also come in for a deal of attention, and some fairly large Government orders are reported to have gone forward. Stocks are well up to requirements without change in prices. General household ironmongery has been slow in the country, but in the city the demand has been fairly well maintained. Generally speaking, these lines have been cut very fine, owing to the large stocks held here at present. Wire nails have also shown a marked improvement. Supplies are rather light and prices firm. White lead, oils and turpentine have been moving freely, the demand being from the country as well as the metropolitan area. There has been a very active month, which is likely to be maintained for some time. Plumbing lines have been good, but sanitary ware and accessories rather slow. Merchants complain of the very great delay that takes place in the testing branch of the Water and Sewerage Board. Stocks are in good supply. Carbide has had a fair run with prices unchanged and stocks of both overseas and colonial satisfactory. Woolpacks have proved a good line this month and prices are inclined to ease, while stocks are plentiful. Corn sacks are moving freely and stocks are on the light side, but a full consignment is near at hand. Glassware and crockery of all kinds have been fair, but merchants are carrying heavy stocks, so prices must come down. Tinned hollow-ware has met with a good demand and prices are firmer with ample stocks.

Adelaide, April 29, 1927.

Trade at this centre during April has not been up to the average. No doubt the extra holidays and the continued fine weather have had a retarding influence on business in this State. No great demand has been experienced for mild steel and fencing materials seem very quiet. Good shipments of galvanised corrugated iron have been arriving during the month so that all merchants are holding good stocks at present. The demand for this line continues active. There has been very little alteration in prices of lines listed during the period under review. Solder 50/50 in parcels of about 5 cwt. has been selling at 1/11. Ingot tin has eased slightly. Resin is down to 35/- per cwt., and Turpentine was sold at 5/8, the cheaper new season's goods influencing prices here. Clearances of cement have been well up to the average.

Melbourne, May 2, 1927.

The hardware market here remains practically unchanged. Large imports of iron and steel led to slightly easier prices of those metals, but purchases have been mostly from hand to mouth. Old established concerns declare they have seldom seen business so dull. This, however, is a complaint constantly heard, but which statistics do not always bear out. Sales of steel and iron were many during April. Five tons of mild steel 6 x ⅜ in. sold at £17/10/- basis; another parcel of the same quality, assorted ⅛ in. to ⅝ in., went at £17 basis; while still another ten ton lot from 3½ to 5⅝ in. was noted at that figure. Square mild steel, ½ in., brought £16/10/- a 10 ton parcel for an Interstate buyer. Five tons bright steel shafting, assorted ¾ to 2½ in. (English) fetched £26 basis, while 250 lengths of ¼ in. round bright shafting was turned over at 40/- cwt. English galvanised corrugated iron was £25/10/- per ton. The quantity of wire netting and fencing wire handled was small. A few miles of netting, 12 x 1¼ x 17, and similar parcels, 36 x 1⅝ x 17, were purchased here and there. The prices for the above were £19/10/- and £27/5/- respectively. Black wire No. 8 sold in 10 ton lots at £14/12/6, and 25 tons galvanised of the same gauge at £16. Very little iron piping was inquired for, and prices are unchanged. In lines of 10,000 feet the ruling figure was, for 1 in. and 1¼ in. pipes, 55 per cent. off list. I.C. coke tin plates, 100 boxes, brought 50/-; while a shipment of 1x coke found a purchaser at 67/6. No great demand has existed for cement. Imports of this product have not been large, and Australian producers are keenly competing for business. In the case of Government contracts the lists of accepted tenders reveal prices as low as 95/- per ton, and even less. The paint market continues dull. As predicted last month, linseed oils have tended downwards. Sales made for future delivery confirm this tendency. Petrol has been reduced 2d. per gallon by American concerns, bringing their spirit into line with the Commonwealth company's brand. The latter, however, retains its advantage, owing to the import duty of 2d. per gallon. There is no advice so far of a similar reduction in kerosene.

For the month's cablegrams see page 174.

"Far more workers rust out than wear out."

"A trade that doesn't respect itself will get more kicks than ha'pence."

When a man makes good goods, when he advertises them liberally, it is plain and logical that he will grow and grow, and continue growing.

Trouble with many of us is that we have our eyes so set on the buying of our merchandise we forget the selling end.

Tourist (in mining town): "Is this a healthy place to settle in."

Hotel Proprietor: "It is that, sir. But it's a most unhealthy spot if you don't settle."

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Australian Market Prices

N.B.—The prices given in these columns are mostly those at which wholesale merchants are prepared to supply ordinary parcels to storekeepers, or other retail dealers. In a few cases we give the quotations of manufacturers or their agents. Preference as well as general duties are shown in the "Duty" column. The first rate is that on goods from the United Kingdom, and the second is the general rate on goods from foreign countries. "F" represents free, and "F 10 %" free from the United Kingdom and 10 % from other countries.

	Duty	Sydney May 2	Melbourne May 2	Adelaide April 29	Brisbane April 29
		£	£	£	£
Pig Iron	20/. 40/				
British		...	7 5/	...	...
Swedish		...	...	...	...
Lithgow		7 10/	7 5/	...	...
Newcastle		7 10/	7 5/	8	...
Bar and Rod	44/. 120/	22 basis	English 21	23/	22/10 basis
Australian		...	18/6	...	...
Mild Steel	44/. 120/				
Bar		19 10/basis	19/ basis	19	18
Angles		19 10/	18	19 10	19
Tees		21	18	20 10	20
Hoops	F., 10%				
Black		20 basis	19 basis	19/6	21. basis
Galv.		32/6 basis	35	33/6	31 10/
Galv. Corr. 24g.	20/, 60/	30/]	29 10/	29 10/	
Orb 26 g		29	31	31 10/	30 5/
,,		30 10/	31		31 10/
Adams Mars		...	...	29	...
Phoenix Cr.		29 15/	30	29 10/	32
Galv. Plain 24g.	20/, 60/	30/]			
Queen's Hd.		31/	31	32 10/	33
Phoenix Cr.		31 5/	33	...	...
Fleur-de-lis		30 10/	...	32	33
Other		...	31 10/	...	43/
Sheet	F., 125/				
Black		27 basis	25 basis	26	26
Baldwins		B26, G34 5/	26 10/	...	19
Plate	F., 120/	basis			
Steel		18 basis	15 basis	15	15 10/
Girder		19/6	21	19	20/-
Fencing Wire	F., 120/				
American 8		18 5/	18 5/	..	..
,, 10		19 5/	19 5/	..	...
Austra'n 8 Bl.		15 12/6	15	15 10/	16/
,, 10 ,,		16 12/6	15 10/	16	17/
Galv. 8		17 17/6	14 10/	18 10/	18 10/
,, 10		18 17/6	15 10/	19 10/	19 10/
,, 12		20 2/6	18 10/	20 15/	20
Barbed Wire,	68/, 180/				
Amern. 12-g.		24	...	...	25 10/
,, 14-g.		25 10/	...	...	26 10/
Austn. 12-g.		24 10/	23	21	25 10/
,, 13-g.			24	25	26
,, 14-g.		25 10/	25	26 10/	26 10/
Wire Netting	F., 200/				
36 x 1½ x 17	per. ton		36 15/	38 10/	
36 x 1½ x 18			29	37/	New
42 x 1½ x 17		15/	49 10/	..	List
42 x 1½ x 17		to	41 10/	...	
42 x 1½ x 18		20%	34	43/6	10 to 15%
36 x 1½ x 17		off	35	...	
36 x 1½ x 18		list	28	...	Off List
36 x 2 x 18			22 10/	31/6	
36 x 2 x 19			20	25/6	
Nails—					
Horshoe	12/, 15/	2½% on list	to 1 lb.	1/ less 10%	List Price
,, Austn.		...	List	...	plus 5%
Wire	5/6, 8/				
,, Austn.	or25%,35%	28/6 basis	20/ to 22/	24/6 to 35/	30/- basis
Roofing—	5/6, 8/				
Evenden		74 6 cwt.	65/cwt., 9 6	10/	11/
Lead-head		...	...	...	44/
Block Tin	Free	294 10/	296	300/	3/
Tin Plates, 28 x 20—	F., 10%				
I.C. Coke	28 x 20	112's 67/6	50/	112's 54/	27/
I.X. Coke	56s	47/6	70/	...	42/
Pig Lead	Free				
Austn.		34	42	37/	37/10
Sheet Lead	10%, 20%	44/	46	50	55/
Dampcourse		4½" 7/-			
2 lb.		4½" 10/6	52		
3 lb.		10/6 Roll	56		
Lead Pipe—	10%, 20%				
¾ to 2in. coils		49/	52	55	64/
Lengths to 5'		51/	54	57 10/	65/
Compo. ¾" & up		54/	56	57 5/	78/
Copper—					
Ingots		...	70	97/6	10d.
Sheet	25%, 40%	1/6	1/7	1/8	1/8
Brass					
Sheet	25%, 40%	1/3	1/2 to 1/6	1/6	1/6

	Duty	Sydney May 2	Melbourne May 2	Adelaide April 29	Brisbane April 29
		£	£	£	£
Zinc—					
Sheet 9 to 18g (7 x 3 & 8 x 3)	25%, 40%	67 10/	62 10/ to 65	69/	65/ cwt.
Perforated	35%, 45%	5/	7	...	5/6
Spelter	10%, 20%	32	...	54	
,, Elec....		301/10/to 37	41 to 42	...	40/
,, Brazing	25%, 40%	1/9	1/5	...	1/9
Bolts & Nuts—		¾" ½"	⅝ ⅝		
Cuphead 3"		75/, 59/	63/ 47/ 41/		
,, 4"	35%, 50%	76/, 57/	61/ 46/ 39/	...	26/3 to 73/
,, 5"		70/, 54/	56/ 43/ 37/		
,, 6"		65/, 49/	52/ 39/ 35/		
,, 6½" to 9"		61/, 47/	49/ 38/ 34/		
,, 9½" to 12"		59/, 45/	47/ 36/ 32/		
Tanks, 400-gal.	Free	6 5/	4 10/		5
,, 200-gal.		3 5/	2 5/		3
Tubing—	F., 10%				
Black, up to 3"		55 off list	55% off	58½off	List 45% off
" 3½ & up	27½		65% off	35 off	.. 5% on
Galv. up to 3"		50 ,,	45% off	46½off	.. 10% off
" 3½ & up	27½	...	tst. List	20 off	Less 10 off
Steam, up to 3"		40 ,,	37½% off	37½off	.. 5% on
" 3½ & up	27½	...	5% off	20 off	.. 25% off
Wr'ght boil.		...	10% on	..	.. 15% on
Explosives—	F., 5%				5/
Hall's C.C.	10%	1/-	10½d.	1/-	1/1
Curtis's ...		10½d	10½d.	1/0½	1/
Chilworth's		10½d.	10½d.	...	1/1
Sporting	15%, 25%	3/6, 4/6	2/9 to 4/6	3/6 to 4/11	3/6 to 5/
Diam. S'less		10/	8/ to 8/6	8/3 to 8/6	5/
Amberite		8/6	7/ to 7/6	6/9 to 7/6	75/
Blast'g Gel.	F. 5%	74/6	74/6	74/6	79/6
Gel. Dyna.		66/	66/	66/	71/6
Gelignite		56/ to 59/6	56/ to 59/3	54/6 to 58/6	62/ to 65/
Dynamite		51/ to 57	51/ to 57/	46/6 to 51/6	...
Detonators	15%, 25%	55/	55 to 60/	60/ to 85/	58/ to 102/
Shot—Chilled	5/, 6/	68/	61	75/	90/
Australian		67/	56	...	...
Cyanide Pot.	Free	1/4	1/6	...	1/6
Quicksilver	Free	5/	5/6	6/-	6/-
Sash Weights	35%, 45%	16/	22/6	16/6	18/6
Sheep Shears	F., 10%	62/6	60/	60/	60
Cement—Impt'd	20%, 30%	25/ cask	21/6	22/6	21/ cask
Aust. (bags)		...	18/	7/4	6/6 bag
Plaster, Imp.	1/6, 2/c	37/6 K.W.	35/	47/6	50/ cask
,, Aust.		Pixie 35/-	8/	9/3	18/ bag
Slates (20 x 10)	30%, 40%				
White Lead—	8/, 10/, or				
Imported	25%, 30%	70/	72 10/	71/6	72/
Australian		62/6	65/	63/	66/
Zinc White	20%, 30%	...	70 to 100	...	72/, to 90/
Oils—					Colonial 56/
Linseed (raw)	9d., 1/		Drs.,		
Imported		R5/6	5/10	Drs., 5/9	5/-
Australian		C4/9 D 4/11	C., 5/-	Drs., 5/6	4/7
Colza	6d., 8d.				
Burning		...	6/-	...	
Castor—	9d., 1/				
½-cases		C 6/3	6/3	7/	7/9
China	2s., 2/6	...	8/	...	...
Cotton seed	6d., 8d.	..	8/6 to 10/	...	10/
Kero.—C.O.R.	Free	...	13/	...	...
Laurel		13/	13/6 to 14/6	13/	13/6
Light of Age		13/	13/6 to 14/6	13/6	13/6
Pennant		13/	13/6 to 14/6	13/	13/6
Turpentine	F.,	6/3	6/3	6/-	52/- c/s
Substitutes	½d., 1d.	3/	18/ per case	...	18/- c/s
Shellac		2/6	2/9	2/5	2/6
Whiting—	6d., 9d.				
English		9/	7/6	10/	£12 ton lots
Colonial		4/9	4/6	6/6	...
Resin, G grade	Free	38/6	35	36/	37/6
Carbide—	80/, 150/				
"I X L"		32/6	25/6	29 5/	29, 7/6
Scandinavian		34/-	27/6	33 10/	33
Canadian		...	...	...	...
Japanese		...	...	...	...
Bluestone—	100/, 200/	...			
Macclesfield		37/6	37/	...	40/
Australian		36(1 cwt c/s)	...	37/6	...
Japanese		...	...		
Stock Tar, 42 g.	25%, 35%		1/5	...	
Woolpacks—	Free	...		...	
42 x 11½		...	6/	5/9	...
54 x 11½		4/7½	4/6	4/9	4/9
Cornsacks—	Free				
2¾ lbs. (Oats)		...		...	...
2¼ lbs		10/6	10/6	11/6	13/6
Branbags	Free	8/3	8/6	8/6	9/ to 10/

Small buyers requiring credit for broken parcels must expect to pay more than prices here quoted.

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Business Register

If you correct them monthly by these pages you will have lists more up-to-date than any Directory. Some leading firms do this.

New South Wales

Pressed Metal Stamping Co. (Henry E. O. Gee), pressed metal workers, Redfern, announce that Henry S. Blunt has become owner of the business.

Firms Registered.

T. Draper, general storekeeper, Tarcutta; proprietors: Tom Draper and Irene G. Draper.

Wylie's, crockery and hardware dealers, 125 Beaumont-street, Hamilton; proprietor: Thomas Wylie.

Gregson Bros., general storekeepers, Cooldbah; proprietors: William D. Gregson, Edgar R. Gregson and Henry J. Gregson.

J. Whitehead & Sons, tool makers and general blacksmiths, 10 Trafalgar-street, Annandale; proprietor: John Whitehead.

C. Tuckerman & Son, general storekeepers, Mainroad, Coledale; proprietors: Claude H. Tuckerman and Reginald Tuckerman.

A. H. Blanch & Son, tinsmiths and sheet metal workers, 5 Burwood-street, Newcastle; proprietors: Adolphus H. Blanch and George H. Blanch.

Company News.

Holdsworth, Macpherson & Co. Ltd. have been registered with a capital of £300,000 in £1 shares, to acquire and continue the hardware business long carried under the style or firm of Holdsworth, Macpherson & Co., at 252 George-street, Sydney. The first directors are Messrs. F. A. Hawley, J. C. Davis and V. Read.

James Loneragan (Mudgee) Co. Ltd. have been registered with a capital of £200,000 in £1 shares. Objects: To carry on the business of general storekeepers and universal providers in all its branches, etc. Subscribers: John E. Loneragan, Minnie E. Loneragan, Edward H. Loneragan, Wilfred J. Spruson, Annie T. Spruson, William D. Langton and Eva J. Langton. Reg. office: Mudgee.

New Zealand

Company News.

Gadds' Stores Ltd. have been registered with a capital of £3000 in £1 shares. Objects: Hardware softgoods, fruiterers, greengrocers, etc. Subscribers: H. Gadd, F. Gadd and D. A. Gadd.

De Baugh's Lion Grip Lagging Co. Ltd. have been registered with a capital of £600 in £1 shares. Objects: To deal in lagging and other insulating materials and incidental. Subscribers: T. S. Miller and H. W. de Baugh.

Speedwell Oil Co. (N.Z.) Ltd. have been registered with a capital of £3000 in £1 shares. Objects: To deal in oil and turpentine, etc., and incidental. Subscribers: I. M. Perman, A. R. C. Savile, F. W. Cave, W. A. Hamblin, J. C. Hardie, B. Beckerleg and F. E. Henry.

Stewart Bros. Ltd. have been registered with a capital of £6000 in £1 shares. Objects: To carry on the trade or business of general engineers, smiths, boilermakers and repairers, manufacturers of iron, brass and steel castings, and general incidental. Subscribers: W. T. Stewart and Ethel M. Stewart. Office: Wanganui.

A. E. Denham & Co. Ltd. have been registered with a capital of £3000 in £1 shares. Objects: To acquire and take over as a going concern the business of dealers in separators heretofore carried on at Dixon-street, Wellington, by A. E. Denham & Co., and general incidental. Subscribers: A. E. Denham and Lillian Denham. Office: 68 Dixon-street, Wellington.

Arthur Body Ltd. have been registered with a capital of £2700 in £1 shares. Objects: To acquire and take over the business of a timber merchant carried on at Wanganui by Arthur Body, and to carry on business as timber and hardware merchants, planing mill and sawmill proprietors, timber growers and general incidental. Subscribers: A. Body and R. N. Spiers. Office: Wanganui.

Queensland

Tytherleigh & Dack, general storekeepers, Booval, Ipswich, have been registered under the Firms Act; proprietors: Sydney Tytherleigh and Joseph A. Dack.

Company News.

International Harvester Co. of Australia Pty. Ltd. announce that the capital of the company has been increased to £1,500,000 by the creation of 50,000 new shares of £10 each.

Atkin Scales Ltd. have been registered with a capital of £50,000 in £1 shares. Objects: To take over the business of Atkin Brisbane Scale Manufacturing Works Ltd., and to carry on the business in all its branches of manufacturers and vendors of scales, steelyards, weighbridges, weighing machines, weights for measuring and all appliances, parts and accessories, etc. Subscribers: Walter S. Bettridge, John C. Penny, James T. Atkin, Bernard D. Davis, Robert Ramsay, George S. Edwards and Edward Litchfield. Reg. office: Union Bank Chambers, 324 Queen-street, Brisbane.

South Australia

Firms Registered.

C. H. Poole & Co., general storekeepers, Rendelsham; proprietor: Alan Arthur Poole.

Bryden & Clark, general storekeepers, Alma; proprietors: William Nichol Bryden and Henry Leslie Clark.

Peacock & Sons, grocers and ironmongers, Commercial and Wehl streets, Mount Gambier; proprietress: Ruth Peacock.

"Horneway Traders," storekeepers and general agents, Brinkworth; proprietor: Charles Andrew Horne (R. Hedley, manager).

Ligertwood & Mayne, general storekeepers, Lower North-East-road, Campbelltown, announce that Arthur Syret Mayne has retired from the firm. Leith Ligertwood is the continuing member.

Neumann & Scheer, general storekeepers, Palmer, announce that Herbert Theodor Scheer has retired from the firm. Herbert Arthur Neumann and Oscar Waldemar Scheer are the continuing members.

Company News.

Pneumatic Implements Ltd. have been registered with a capital of £2500 in £1 shares. Objects: To acquire the business of Coombs Pneumatic Implements Ltd. (in liquidation), and to carry on the business of iron founders, mechanical engineers, manufacturers of agricultural implements and other machinery, tool-makers, metal-workers, woodworkers, builders, etc., and to manufacture, repair and deal in machinery, implements, rolling stock and hardware of all kinds. Subscribers: Alfred Rodda, John Paton Ferguson, John Smith Roberts, Maurice Collins and William Augustus Coombs. Reg. office: Pinda-street, Kilkenny.

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Victoria

The A. A. Phoenix Co., importers of engineers' requisites, and manufacturers' agents, 493-95 Collins-street, Melbourne, have been registered under the Firms Act; proprietor: Alfred Adams.

Company News.

W. R. Volum & Co. Pty. Ltd. have moved from 497 Collins-street to 294 Little Collins-street, Melbourne.

L. Bannister & Sons Pty. Ltd., hardware merchants 393 Flinders-street, Melbourne, have gone into liquidation. D. A. White and R. H. Willis, of 97 Queen-street, are the liquidators.

Complex Automatic Harvester Co. Ltd. have been registered with a capital of £50,000 in £1 shares. Subscribers: John Albert Curnow, Albert Thompson, Walter Colville Steel, Harold Edwin Taylor and John Gilpin. Reg. office: 178 Collins-street, Melbourne.

Globe Art Metal Co. Pty. Ltd. have been registered with a capital of £10,000 in £1 shares. Objects: To acquire as a going concern the business of Globe Art Metal Co. Subscribers: Ernest Edward Panlock and John White. Reg. office: 25 Little Collins-street, Melbourne.

The Engineering Specialities Pty. Ltd., engineers, founders and smiths, etc., have been registered with a capital of £30,000 in £1 shares. Subscribers: William Dill Hunter, Geoffry Hurry, Joseph Henry Abbott, Norman Sydney Deravin, Harry Francis Longstaff, William Bockli and Gamet Wesley Deravin. Reg. office: Temple Court, Collins-street, Melbourne.

Western Australia

State Implement & Engineering Works have opened new offices and showrooms at 306-08 Murray-street, Perth.

J. J. Julian, furniture and hardware dealer, Boulder, opened a service station at Boulder on April 1, 1927.

Knight & Son, general storekeepers, opposite Railway Station, Bassendean, have been registered under the Firms Act; proprietors: Herbert Albert Victor Knight and Howard Cyril Victor Knight.

Swan Portland Cement Ltd. have been registered under the Companies Act with a capital of £150,000 in £1 shares. Objects: To acquire the business of the West Australian Portland Cement Co. Ltd. (in liquidation). Reg. office: 41 Pier-street, Perth.

Agents and Agencies

Noyes Bros. (Sydney) Ltd., of 115 Clarence-street, Sydney, are N.S.W. agents for Saunderson Bros. & Newbould Ltd., of Sheffield, England, in the matter of saws of all descriptions, which are stocked.

William Adams & Co. Ltd., of Sydney and elsewhere, have been appointed sole Australian agents for "Britannia" lathes, manufactured by the Britannia Lathe & Oil Engine Co. Ltd., Colchester, England.

Cheetham & White, of Cromwell Buildings, Bourke-street, Melbourne, have been appointed managing agents for Cementware Supplies Pty. Ltd., manufacturers of reinforced cement laundry troughs. The business of the company will be conducted for the future from the office of the agents.

Walter A. Cox Ltd., 195 Clarence-street, Sydney, have been appointed Australian representatives for Smith & Davis Ltd., brassfounders, Hampton-street, Birmingham. This firm are the manufacturers of "Beacon" brand stamped brassware, samples of which will be on view shortly at their representatives' showrooms.

A. J. Van Dugteren & Sons, of Australia House, Carrington-street, Sydney, have been appointed Australian and New Zealand representatives for Blok & Co., a Czechoslovakian firm of chinaware manufacturers. They are now showing a representative sample range of tea sets beautifully decorated in floral designs, comports, bonbonniers, mocha (coffee sets), salads and fruits.

Mr. Harold R. Richardson, of Broughton House, Clarence-street, Sydney, and other States, has been appointed sole Australian representative for Froggatt & Tyler Ltd., Bilston, England, who specialise in the manufactured of Japanned trays and milk and baking tins. This agency was for many years held by S. Scott Young Ltd., who, as announced in the April issue, have now gone out of business.

Travellers

In New Zealand.

Mr. Percy Lyttle, of Walter A. Cox Ltd., Sydney, reached New Zealand towards the end of April, and from Wellington left for the South Island with a full range of samples.

Mr. A. A. Byrne, of Tylors Ltd., Auckland, was in Wellington during April with samples of enamelled ware, clocks, brassware and household requisites from the various manufacturers represented.

In Victoria.

Mr. P. Clifton Jones, of Australia House, 52 Carrington-street, Sydney, will be showing during May, both at Commerce House, Melbourne, and Adelaide, new ranges of samples on behalf of his British and Continental principals, particularly cut crystal glass, china, earthenware, aluminium and tools. In connection with the latter, Mr. Carl Dierkes of Remscheid, Germany, is arriving by the s.s. "Suevic," bringing a most comprehensive range of samples of tools, and he will accompany Mr. Clifton Jones to the various State capitals.

To and From Europe.

Mr. W. S. Phillips, chairman of directors of Meggitt Ltd., Sydney and Melbourne, is a passenger by the R.M.S. "Orama" to London. Accompanied by his wife, he is making a visit to Europe.

Mr. H. P. Christmas, of Woolworths Ltd., Imperial Arcade, Sydney, accompanied by Mrs. Christmas, left by the R.M.S. "Ormonde" on a business visit to England and the Continent. Mr. P. Whittall will manage the business during the absence of Mr. Christmas.

Mr. K. Benham, managing director of the Universal Grinding Wheel Co. Ltd., Stafford, England, after a rather hurried business visit to the principal centres of Australia, left Sydney on April 7 for New Zealand, where he proposes to remain for about a month, returning via Canada. The object of Mr. Benham's visit was to inquire into the possibility of extension of trade in these parts commensurate with the increased demand in the markets of other parts of the Empire. He informs us that since the war the output of his firm's factory has been trebled and that an important extension of the works is now under consideration. The Australian representative is Mr. C. E. Mayo, 209a Castlereagh-street, Sydney.

Mr. Benham is also a director of George Jones & Sons Ltd., china and earthenware manufacturers, Stoke-on-Trent, who are represented here by W. G. South & Cowan, 352 Kent-street, Sydney.

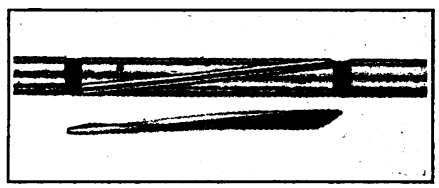
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Machinery

Single Bladed Adjustable Reamer.

The Modern Reamer Specialty Co., of 2401 Chestnut-street, Philadelphia, Pa., U.S.A., are marketing a single bladed adjustable reamer.

The tool consists of a solid body with a groove in which is inserted a single blade. This groove may be either spiral or straight. Set screws are



used to hold the blade in position, both at the sides and the bottom, thus giving a wide range of adjustment.

It is, in fact, possible to re-grind the blade with an eccentric relief by shifting the blade somewhat forward of its cutting position. The amount of this eccentric relief can be governed by the set screws, so that a shallow or deep relief can be obtained as desired. Due to this wide range of alignment, the blade can be re-ground many times.

The solid body ensures proper alignment at all times. It also enables the tool to be used as either a roughing or finishing tool.

High Speed Steel Hacksaw Blades.

Hacksaw blades of high speed steel are one of the latest specialties of T. Firth & Sons Ltd., of Sheffield, Eng. The use for this purpose of this material, while not entirely new, is a comparatively recent development, and the greatly increased output that can be obtained is perhaps not always appreciated by engineering firms. The relative outputs of high speed steel blades and carbon or low-alloy steel blades may fairly be compared with those obtained from cutting tools of the same materials.

The new high speed steel blades are known as "Speedicut." For cutting soft steel the firm recommend speeds of from 120 to 140 strokes per minute, and for tough alloys 100 to 120 strokes per minute. A soda water solution is suggested as a lubricant.

Tests were made with these blades against Firth Die-hard alloy steel blades and well-known alloy blades of a similar analysis. The material operated on was .65 per cent. carbon steel containing .76 per cent. manganese and the Grinnell hardness was 228. The saws were run dry at 66 strokes per minute at a 6 in. stroke. They were tested on a 1 in. square bar, with a constant pressure of 22 lb. on the saws. All the saws were 11¾ in. long between centres by ¾ in. wide with 10 teeth per in.; the thickness of "Speedicut" saws being .048 in., Die-hard .049 in., and American .047 in. The two alloy steels failed during the 17th and 18th cuts respectively, while the "Speedicut" blades made 196 complete cuts.

It is stated that by speeding up the cutting to 120 cuts per minute, the time of cutting is reduced about half, yet the life of the blade is five or six times that of a good alloy steel blade. These blades are not unduly brittle, as later improvements in manufacture have made them as resistant to breakage as the older types.

Oxy-Acetylene Welding Equipment.

The Imperial Brass Manufacturing Co., of Chicago, Ill., U.S.A., offer a complete line of oxy-acetylene welding and cutting torches and outfits.

This line is known as the "Imperial," the standard welding torch being known as the Type X. It is suitable for all ranges of oxy-acetylene welding. It embodies an improved mixing principle which, it is claimed, ensures an accurate control of gases, thus assuring successful welds.

Plastic Wood.

The Addison Leslie Co., of Canton, Mass., U.S.A., announce a mouldable pulp that can be worked like putty and handled like wood.

This substance is obtainable in one-quarter and one pound cans. As it comes from the can plastic wood can be moulded with the fingers or pushed into holes or cracks. It will adhere to metal, tile, cloth, and glass, as well as wooden surfaces.

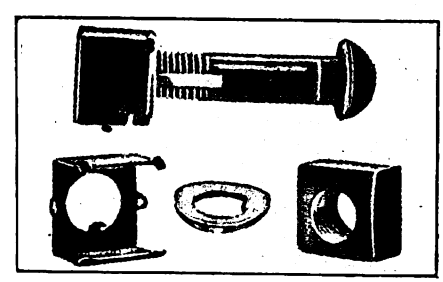
In its hardened form it can be carved, planed, sandpapered, and turned on the lathe. It will take paint and varnish just as wood will. It differs from wood only in that it has no grain. Nails will not split it.

Plastic wood can be used for making repairs on machinery, for patterns, and all kinds of mending.

Lock Nut and Washer.

The Andrix Lock Nut Co., of Adrian, Mich., U.S.A., are marketing a lock nut for use on mechanical and constructional work. It is claimed that these nuts never fail to hold the bolt tight, the spring washer taking up all stretch.

The washer is made of high-carbon spring steel, and has a tongue that engages a spline cut in the



bolt body. A similar tongue in the locking piece also engages this spline and thus prevents the nut from turning. The lock is made of heat-treated crucible steel and is Parkerized to withstand the elements when used on outdoor jobs. It will neither rust nor rattle off.

In use, the washer is first fitted, and then the nut which is tightened with one of its flat sides in line with the spline on the bolt. The locking piece can then be snapped into place.

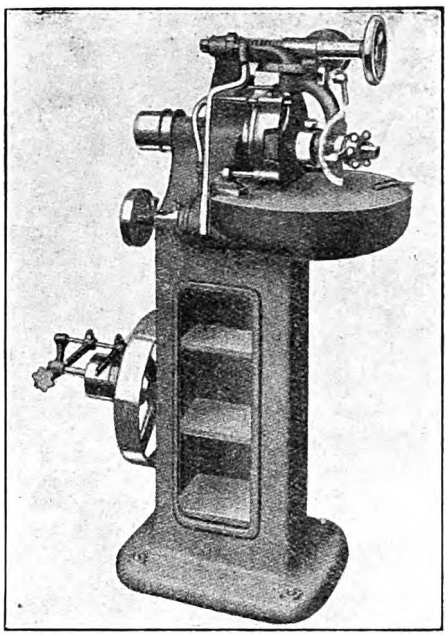
Four prongs grip the underside of the nut and prevent the lock from falling off. To remove the device, a screwdriver or other edged tool is inserted under the side of the lock close to the lower edge so as to spring the prongs free. This does not damage the device, so it can be used over again.

The lock nut is made in square and hexagon types in four sizes; ⅞, 1, 1⅛, and 1¼ in. to fit standard nuts.

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New Tool Grinder.

The Coats Machine Tool Co. Ltd. of Palmer-street, London, S.W., England, are marketing reliable tools grinders in various sizes, two of which for the lighter duties may be mentioned.



Size No. 1, illustrated, is for work § in. square, or ⅜ in. by § in., while size No. 2 is for work 1 in. square or ¾ in. by 1⅜ in. Each is driven by a line-shaft through a self-contained counter-shaft, but a separate counter-shaft can be furnished if required. Further, the machine can be driven direct from a motor placed on the floor.

The mechanism for controlling the various angular movements of the tool is carried on an overarm located over the main grinding spindle bearing. The whole mechanism can be oscillated across the face of the wheel by means of a convenient lever at the left of the machine, an adjustable counter-weight ensuring easy movement. Three motions are provided, two swivelling motions, horizontal and vertical, and a feed to and from the grinding wheel. This feed is controlled by a hand wheel in front, operating through a screw and nut, the thrust being taken on a ball bearing. The pressure on the threads of the nut is taken by a compression spring.

For swivelling the tool through 180 deg. horizontally the tool holder is carried on an arm and may be set at any definite angle by means of the graduated disc. The locking device here is specially designed for quick manipulation, a slotted nut being engaged or disengaged by a flat portion of the swivelling handle. For angular movement in the vertical plane the tool holder may also be swivelled and set to any definite angle by means of another graduated disc, locking being by means of a thumb-screw in front of the tool holder.

The grinding spindle carries a cup wheel running at 2,500 r.p.m., and is mounted on totally enclosed end thrust ball bearings. The wheel is totally enclosed, a small section only of the wheel being exposed to allow contact with the work.

For the second operation of sharpening the tools after hardening, the machine is provided with a pump and tank to supply coolant to the tool, a rotary pump being driven from the main spindle. A small tank is located beneath the wheel and provided with a tray. The coolant is returned by means of this tray through a strainer to the tank below, this being constructed in sections to form a settling department.

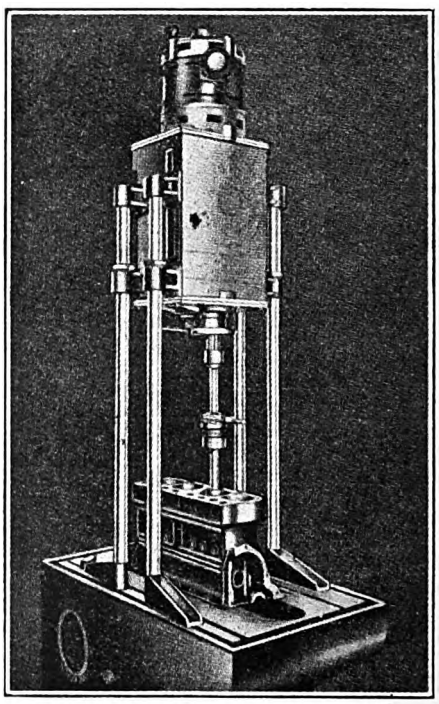
The grinding wheel used in the smallest machine is 4¾ in. diameter by 1§ in. wide. Floor space required is 26 in. by 24 in., 1½ h.p. being required to drive. The weight is 300 lb. The grinding wheel of size No. 2 is 8 in. by 2§in., the floor space 40 in. by 28 in., the horse-power required 3, and the weight 560 lb.

Portable Cylinder Grinder.

The Hutto Engineering Co., of Detroit, Mich., U.S.A., have perfected a portable cylinder grinding machine to meet the needs of service garages and the like.

The unit combines a self-contained power-plant and adjustable stroking mechanism with a compact, sturdy construction. The machine is light in weight and can be used for grinding a cylnder block in place in the chassis. By means of a universal range of adjustment of the machine's swivel feet, it is possible to fasten it in place on top of the cylinder block, using the head stud bolts. The machine is equipped with ball bearings throughout.

The Hutto "Twin-three" cylinder is the tool used for the actual grinding. It consists of a hardened steel body containing a full floating, double opposed cone assembly for the expansion and positive set of the six abrasive cutting units. With this construction it is possible to correct out-of-round or taper conditions, "key-ways," or bad scores in a worn cylinder. The walls are said to be made round and straight with a smooth satin finish, rather than a high polish.



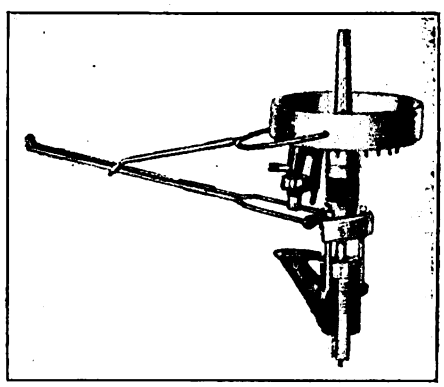
This tool may also be driven by a § in. heavy-duty electric drill, held and reciprocated by hand, or the same unit can be fitted to a brake-type production head and driven by a press spindle equipped with a suitable reciprocating mechanism.

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Automatic Screw Driving Machine.

The Metal Saw Machine Co. Inc., of 40 Napier-street, Springfield, Mass., U.S.A., are the makers of an automatic screw driving machine, equipped with a standard taper shank, so that it can be readily inserted in a drilling machine spindle.

The screws are thrown into the hopper in half-gross lots, and no individual handling is necessary. The hopper has an eccentric motion that causes the



screws to fall into a slot large enough to loosely enclose the necks of crews but do not allow the heads to pass. On lowering the feed lever one screw is driven rapidly into the work and another automatically takes its place. Before the screw is driven it is plainly visible to the operator and can be easily located on the work. The delivery member can be stopped at any pre-determined point.

A torsion device prevents the screws being over-driven. When the resistance offered by the tightening of the screw reaches a set amount, the clutch is thrown out and the screw-driving spindle stops until withdrawn from the screw head. The spindle operates at 650 r.p.m.

The machine is made in twelve sizes, to accommodate screws ranging from ¼ to 2¼ in. The smallest size is Model No. 2, which handles No. 2 screws from ¼ to ½ in. in length, and is fitted with a No. 1 Morse Taper. The largest size, No. 14L, handles No. 14 screws from 1½ to 2¼ in. in length, and is provided with a No. 3 Morse Taper.

A New Steel.

The Jones and Laughlin Steel Corporation, of Pittsburgh, Pa., U.S.A., are marketing an improved open hearth steel specially adapted for case-hardening and for forgings where machinability is most important. The steel is called "Jalcase," and can be obtained in hot or cold rolled bars.

It is specially processed, and contains a new combination of elements that have not been used previously in alloy steels. The following properties are claimed: it has free-cutting qualities equal to Bessemer screw stock; it is superior to the carbon grades of case-carburizing steels, and it approaches the alloy grades; it develops a hard, wear-resisting normal case, free from soft spots, and it possesses a tough ductile cone.

"Jalcase" is recommended for case-carburized parts that are subjected to severe abrasive wear, high stresses, or repeated shocks. It is also recommended for case-hardened forgings, or for forgings in which machinability is a factor. In combination with its tree-cutting properties it has the ability to withstand cold heading, rendering it suitable for cold-headed bolts, cap screws and the like.

It is claimed that the use of this steel will result in lower costs, since the cutting speed is increased, carburizing time decreased, and few corrections have to be made for distortions after hardening.

Gravity Lowering Chain Block.

Herbert Morris, of Buffalo, N.Y., U.S.A., are responsible for a gravity lowering chain block. The hoist is designed in five sizes, ranging from ½ to 5 tons in capacity. It is claimed that even the 5-ton block will gravity lower with only 14 lb. on the hook.

The frame is of rolled steel plates and forgings. The hoisting mechanism consists of a worm and wheel. The worm wheel is made integral with the load chain wheel. The worm has a double thread, and its lead is large enough to allow the wheel to drive it when the load is placed on the hook. The gears are turned from solid, and heat-treated and ground. The thrust is taken by ball thrust bearings. One end of the worm shaft has a centrifugal brake that keeps the lowering speed within safe limits when gravity operating.

The hand chain wheel is provided with a runaway clutch to hold it steady while the load is gravity lowering. The load can be lowered by operating the chain if so desired. An automatic brake on the worm shaft retains the load when the hand chain is released.

The pull at the hand chain for rated loads ranges from 75 lb. on the ½ ton to 160 lb. on the 5 ton, and the lowering speed ranges from 60 ft. per min. to 12 ft. per min. respectively.

The ½ ton hoist has a standard clear lift of 8 ft., and that of the 5 ton is 12 ft. The smallest unit weighs 94 lb. and the largest 435 lb.

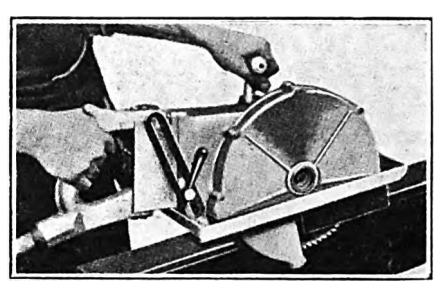
Portable Electric Hand Saw.

The Wappat Gear Works, of Meade-street, Braddock-avenue, Pittsburg, Pa., U.S.A., are manufacturing a portable electric hand saw called the "Alta."

Fitted with a powerful universal motor for use on either d.c. or a.c. circuits, it cross-cuts and rips boards up to 3 in. in thickness. Special saw blades can be furnished for cutting wood, stone, fibre, bakelite, hard rubber, steel and other materials.

Five blades are furnished, unless otherwise specified, thus covering a wide range of uses. The motor is rated at ¾ h.p. and is mounted on Timken tapered roller bearings, as is the worm drive to the saw spindle.

A particular feature is the telescoping guard that completely encloses the blade and automatically opens when the saw is pushed into the material. It closes again when the cut is completed, thus giving maximum protection from accident and damage to the saw blade. A wide carrying shoe supports the weight of the tool and prevents



tipping, so that the chief effort of the operator is in guiding the saw. This shoe is made of pressed steel, is nickel plated, and is adjustable to allow the saw to be set for any depth of cut.

An air blast from the motor fan is directed to the front of the saw to blow the sawdust away. The handles of the device are placed to give good balance and eliminate wrist strain.

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Tools for the Garden and Orchard

Buyers' Notes for Retail Dealers

Sydney

William Adams & Co. Ltd., of 175 Clarence-street, Sydney, have stocks of Plumb's Tasmanian pattern axes which are accurately tempered, and do not easily succumb to abuse; the axes are fitted with No. 1 hickory handles, which ensure long life and true stroke to the tool. Kelly's "Yankee" pattern axes also are square pole, have best selected quality hickory handle, and are designed for Australian conditions. Both are favourites in the bush, and for orchard use. "Perfection" and "Ideal" axe-handles are in standard sizes.

Brandt Bros. Ltd., of 236 Pitt-street, Sydney, have in prominence the "Daisy" plain lawn mower with grass box, whose finish in green, edged with gold.

Interesting to those who transform bushland into a garden is an undergrowth-destroying torch made in Sweden by the makers of the "Primus" stoves. This one-man operated torch is on the "Primus" principle, applied to a burning-off lamp resembling torch, connected by 9 ft. of hose armoured with wire, to a "Primus" pressure tank; at top and sides the torch is sheet-armoured to protect the operator. The red-finished pressure tanks are in 2, 4 and 6 gallon capacities; a very intensive heat is generated, scorching away minor growth and trash.

New, by Tyzack, is a handy D-handled grass-edge cutting tool. Garden sprayers newly in stock include the ordinary "Gem" and "Super-Gem" hand-sprays, and the "Rain King" revolving or stationary sprinkler fitted with nozzle of three parts to give a wide range of spray according to the needs and robustness of the vegetation. For conveying water to the sprinklers is fresh rubber hose ½ and ¾ in. Galvanised watering cans are steadily made to stock, and there are shovels, trowels and weeding forks; also galvanised wire netting in any mesh and size to keep unwelcome visitors from gardens and orchards. A shipment, quite comprehensive in assortment, of garden and orchard tools and implements, is to hand.

E. C. Brown & Co.'s garden and orchard sprays are available, and are too well known to storekeepers to need detailed description. For garden uses are high pressure hose cocks from ½ to 2 in. bare, or with nut and tail.

Briscoe & Co. Ltd., of 383-85 Kent-street, Sydney, feature Disston's handy-gripped Nos. 9 and 19 double swivel type pruning saws, and the "California" 14 in. and the "Duplex" saw in similar length. In nests of two or three are pruning saws by Disston, and on card sets of three by Tyzack. To Seymour Smith, Weiss and the French "Mexeur" pruning shears a cheap "Good Line" shear by Ahrem has been added; about to become available is another moderately priced German pruning shear—the "Weisburg." Every handled implement—cultivator, rake, shovel, spade, digging or other forks, —watering cans, wire netting, and so on, the storekeeper requires for the needs of his clients, are freshly in stock from makers Australian and overseas. Special is the "Viking" selfadjusting ball-bearing lawn-mower in gold finish, which runs and operates with ease, and a sound resembling that of a sewing machine. Under the firm's own brand the plain bearings silver-finished "Hercules" lawn mower remains in favour. Green's "New Century" and "Silens Messor" are in stock. Bucket and spray pumps for orchard use are well represented.

Buzacott & Co. Ltd., of 7-11 Market-street, Sydney, stock all their own make of wire fences and gates and wire goods for garden use for lawns and orchards. Gardens and orchard sprayers, pumps and engines, are in customary range.

John Danks & Son Pty. Ltd., of 324-30 Pitt-street, Sydney, are particularly well supplied with sprinklers. Newly to hand, the stocks include the spike-style "Rainbow" with controlling nozzle to produce spray, mist or jet; the "Crescent" 8½ in., the "Square Fountain" and the "Handy," both 5 in.; all these are stationary. For revolving or stationary use as desired is the "Giant Rain King," which also comes on rollers; the whirling or stationary "Standard Rain King" with two arms producing all sprays; also the "Whirling Fairy" with two arms; the "Anaconda" with three, and the 21 in. high "Yankee" with four arms.

To convey water down the garden is the "Oceanic" and "Federal" three-ply, the "Sunproof" red-ribbed, and the 5-ply "Cascade" hose; all brands are in ½ and ¾ in. sizes. Pope's irrigation system retains gardeners' favour. And to lift water for irrigation on large scale, specially is the "Billabong" centrifugal pumps and windmills, moderately priced.

Garden and orchard implements, large and small, are in complete range under the names Skelton, Tyzack, Wallingford, and others equally well-known. This applies also to seasonal pruning shears, and shears for garden purposes—stocks are replenished in all. The "Kerotin" spray pump is in demand by gardeners. There are garden barrows of wood painted green, and iron barrows galvanised or painted black. Garden seats are in various styles with wrought iron legs and varnished battens, including a light pattern. Sheep and cattle troughing is available, and is made to suit any requirements.

Farleigh, Nettheim & Co., of 80 Clarence-street, Sydney, having decided to stock garden and orchard implements, will in July have available for storekeepers, shovels, spades, digging forks, border and weeding forks, Dutch hoes and border hoes, and garden trowels, of Skelton's make.

W. S. Friend & Co., of 113 York-street, Sydney, carry complete and comprehensive assortments of all lines of tools and implements for the gardener and orchardist. Recent bounteous rains by benefiting the soil have quickened the demand for gardening tools, and supplies are in hand to meet every requirement. Best makers' names are seen on the various implements in assurance of excellence commensurate with grade and price. For inevitably recurring dry seasons numerous garden sprays and hose for these are available. For open air enjoyment various styles of garden seats are in stock, and there are garden rollers in various dimensions. Pruning shears are a strong seasonal line, includ-

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ing English, American and French makes, and parts for these.

For cutting the lawn, private or sporting, or any green, to any length its uses demand, are numerous brands of mowers differently priced, including the firm's own brand, the "Abbotsford." New is the English made "Keynsham" motor mower, strongly constructed with wrought iron sides. A powerful engine sits openly in view with every part visible; opposite is the red, tubular fuel tank. Within finger-touch by the left handle bar is the control, where the reversing lever is handily located. A good-sized grass catching box is complementary. Its finish is blue, and the handle-bars are of wood bright varnished. Lattice in various sizes, wire netting in all mesh, including rabbit proof, staples, fasteners and strainers for fencing wire, are in stock.

Grimley Ltd., of "Monarch House," Broadway, Glebe, Sydney, have appreciably increased their stock of storekeepers' lines for garden and orchard use. Mowers are strongly in supply, representing the "Coldwell" brand mainly, which are built for Australian conditions. Thus the "Improved Gem" is favoured by English gardeners; the "Jewell" has adjustable bronze bushings instead of ball-bearings; the "Buffalo" mows to half an inch from the ground; the "Lo-cut has large revolving cutter and is easy to handle; and the "English Special" cuts extremely close and smooth on sporting greens and courts; these three are ball-bearing. Additional are the "Regina" plain and "Paragon" ball-bearing, in two sizes.

New is a specially flanged hose cap and lining, which prevents the hose slipping off. The Sydney-made "Rainbow" sprayers and rakes are in prominence. The customary brands and names are on the forks, rakes and spades; and there is a new combination rake and hoe with four prongs slit from the sheet of steel and twisted and shaped to suit. Tyzack's weeding forks are with both long and short handle; there are Ellwell's chipping hoes and new Wills burr hoes with and without handle. Implement handles are of spotted gum, and the Melbourne made "Blue Mountain" brand of handles. New, in various kinds, with 8 and 9 in. blades, are "Crest" brand pruning shears. Orange clippers, black and bright, are by Weiss, and others carry the "Pexto" brand. Also new are "Crest" brand hedge shears with 7, 8 and 9 in. notched blades; while garden shears newly in stock come with 6 in. blades.

Hill, Magill Ltd., of 131-33 York-street, Sydney, meet the demand for lawn trimming subsequent to the rains, with such plain or ball-bearing mowers newly in hand as the "Regina," "Paragon," "Britannia" and "Victor" in that order of value. Grass-catchers are to suit all mowers. Small and large tools for the garden and orchard include the names Brown, Skelton, Parkes, Hutton, Ellwell, and others. Pruning shears are in sufficient range to suit all purchasers and preferences. Implement handles of good Australian wood carry the "Dad" brand, and come steadily fresh from the factory. Sprays and sprinklers for use when dry weather supervenes, are in numerous styles wherein may be mentioned the "Rainbow" Sydney-made of proven merit; various revolving and stationary sprinklers; also atomizers and sprayers to destroy insects and eradicate disease from garden growth and orchard trees. Garden shears and hedge clippers are being unpacked. Watering cans, sieves, wire netting, fencing wire and accessories, are standard lines.

S. Hoffnung & Co. Ltd., of 163 Pitt-street, Sydney, have landed fresh stocks of the implements, tools and appliances the orchardist and gardener require. Spades, digging and all other ground forks, rakes, hoes and all such tools are there, labelled with the familiar names of overseas and some local makers. Pruning shears are well represented, with Seymour Smith, Weiss, and "Mexeur" in old makes, augmented with Ahrem's "Good Line" and other cheaper German pruning shears new to this house. New, also, to Hoffnungs, is a full range of Disston pruning saws.

Sprayers include the "Baby Favourite" of tin, and the new "Rega" continuous sprayer with capacious barrel and wood handle; all its essential parts are of solid brass. New is a good English line of spray pumps, which in cost come less than the "Success." The "Crescent" bucket pump sprayer is still available. Forks and garden shears are in the usual supply. "Climax" steel rakes are with 10, 12, 14 and 16 teeth, and English wrought rake heads are with similar range of teeth with 8 and 18 additional. Inclusive in cultivators is the "Midget Norcross," various weeders, and potato hooks with solid steel diamond shape prongs, and for littered lawns are rakes of bamboo.

The range of lawn mowers is comprehensive, including the brands "Paragon," "Green Mountain," "New England," "Speedwell," "Sheffield," "Portland," "Qualcast," "Regina," "Sterling," "New Mystic" and the "New Crescent"—some ball-bearing, others not.

Holdsworth, Macpherson & Co. Ltd., of 252 George-street, Sydney, have added to their stock of pruning shears, which include the "Mexeur" and Weiss, Ahrem's "Good Line" brand. New and special is the "Pexto" pruning shear outfit for storekeepers, consisting of fifteen secateurs of good quality; of these seven at a time can be mounted in conspicuous view on a large, yellow, arrestingly lettered display stand of tin. Springs, nuts, bolts and other accessories for pruning shears and blades for the "Mexeur" are available.

A T-handled half-moon shaped grass plot edge cutter also offered, without handle, is new. Plumb and Kelly axes are in supply. To effectively strain the wire which excludes cattle from gardens and orchards come Donald's patent strainer; also Page's; the "Holdfast" and "Sure Grip," each possessing points of merit. Edging shears are newly in supply, and new are the "Rainbow" rakes in green enamel, and "Norcross" cultivators whose claw-bent spear-pointed prongs can be unscrewed. Sieves in brass and galvanised iron mesh are in numerous sizes of mesh. Binder twine is well in supply. Various handled garden and orchard tools, wire netting, staples and fasteners, and watering cans are in newly replenished stock.

Lawn mowers are in customary supply of excellent machines wherein the firm's registered brand "Little Wonder" is fitted with five cutting blades of vanadium steel, and its bottom knife is of the best saw steel; its four sizes suit Australian conditions, and cut close, leaving no ridges. The "English Special" in three sizes is ball-bearing, and mows all kinds of lawn closely. The "Golden Eagle" is among the best imported ball-bearing mowers; the "Buffalo" adjusts for medium or close mowing; Green's "Century" serves well on English grasses or couch, and the "Silens Messor" for sporting greens and lawns generally comes in various sizes.

John Keep & Sons Ltd., of 104-08 Sussex-street, Sydney, have added to their stocks of garden implements Brown's long-handled round-mouth shovel, and another round-mouth one by Joe H. Smith & Sons. Baldwin's "Knox-all" new grain scoop might also find appropriate mention. New garden trowels with the handle shaped full-bodied toward the end for comfortable grip, are of metal and integral with the bright finished blade or cutting part. Another style lacks handle perforations, and are all over green except the point of the trowel; and there

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are ordinary garden trowels with bright-wood handle varying in length.

Among hand weeding forks comes a new grubber in stout bright-wood handle; its business portion is band steel, curving just clear of the handle, and rising again to the horizontal, having its end split into three sharp prongs. All digging tools by prominent makers are in stock, and fresh consignments are being added to these.

All parts and accessories for garden hose, also sprinklers and sprays, are available. New and special is the "Iron Arm Minor No. 1" sprayer, with patent "All Ways" nozzle, which is operated by lever to give straight, powerful jet, broad or fantail spray, fine mist spray, and upward and downward spray for reaching under and over the leaves; it is in brass and green and with black foot holder. Woodman's axes include the "Arvika," Swedish-made, Kelly, "Green Mountain," "Buckhorn" and Plumb. Available are all rakes, hoes, forks, spades and handles for these. In three numbers, attractively gold, silver, and otherwise finished, according to number, are the firm's own "Dingo" lawn mowers. Pruning shears include makes by Australian, English, Continental and American firms.

W. Kopsen & Co. Ltd., of 70-72 Clarence-street, Sydney, continue the manufacture of their "Pioneer" brand of handles for garden and orchard implements, such as rakes, hay-forks, shovels, spades, and so on. These are made from Australian "mountain ash."

H. V. McKay Pty. Ltd., of 27-29 George-street West, Sydney, have in stock all implements necessary for the orchard and farm. Particularly noticeable are the "Sunshine" two-row vineyard fertilizer drill, whose rigid tines have steel boots; it sows, adjustably, to any depth and to 28 in. apart, from 50 lb. to 8 cwt. per acre. A spraying outfit with "Sundex" engine, and the "Sunshine" spray gun, are noteworthy. Much appreciated by banana planters is the "Sunjunior" cultivator with fixed handles for general and shifting handles for orchard use. For vineyards and orchards the two-horse 8-furrow "Sunskimmer" light plough has cast shares and steel boards for cutting and burying weeds. Points in many styles are available to fit "Sunshine" tine cultivators, with shares, swingletrees, and other parts and attachments.

McPherson's Pty. Ltd., of 51-65 Bathurst-street, Sydney, in addition to their well-known pumps of various capacities and kinds suitable for irrigation on any scale, have added the new "Ajax," which is a handy and useful pump with various advantages.

Insect and fungus destroying sprayers for orchard and garden trees accorded prominence and in stock are the American "Auto-spray No. 1," now well-known to conform with its guarantee to give satisfaction, and requires no tools for dismantling; also the "Sans Rival" spray pump, whose copper tank and fixtures remain unaffected by corrosive liquids. It holds 3½ gallons, is squat tubular in shape, and comes with two nozzles and strainer, 2 ft. 6 in. of hose, and 18 in. brass extension.

Enamelled white with brass rims are rain gauges for gardeners disposed to make meteorological observations. Wire gates and fencing in standard mesh and gauges are also available.

Mason Bros. Ltd., of 102 Clarence-street, Sydney, now stock all "Rainbow" sprinklers, "Broomrake" and "Cultirake." Shovels come from Spear & Jackson, and from the same firm handy garden sets in six pieces. Under the trade name "Billy," garden trowels, and hand forks with wood handle are on offer, together with digging forks and spades of various makes.

Special under the firm's own brand is the plain bearing "Clinker" lawn mower. Similar to the "Regina," this mower has five blades, comes in from 10 to 14 in., is aluminium on cast finish, and has varnished handle. Hedge shears are in styles for both sexes. Mattocks, handles for all instruments, and all fittings and cocks for hose connection, are well stocked. An excellent pruning saw of Swedish make, the "Viking," is carried, while the pruning shears include Ahrem's "Good Line" brand. Available are drag scoops in two capacities for garden land formation and levelling, and excavation for irrigation. Garden barrows are entirely of wood, and others with steel body have wood shafts.

Practically all these lines are new to the firm.

Metters Ltd., of Wentworth-avenue and Goulburn-street, Sydney, for country users, specialise in the manufacture of their "Little Toff" and "Nuoil" windmills, together with pumps and tanks for these, to suit various requirements. Other manufactures in stock include all-galvanised iron barrows; ornamentally framed garden seats and sets of legs, with the wood seating and the back portions either laths or varnished mahogany, or boards. Useful for gardeners and orchardists is Walker's pattern wire strainer of strong bolt-like construction, with bar lever through the round head.

Noyes Bros. (Sydney) Ltd., of 115 Clarence-street, Sydney, have in stock the American-made "Regina" plain bearing low-cutting lawn mower in 10, 12 and 14 in. sizes. For grading gardens, ditching and scooping irrigation channels, the "Western Drag Scraper," with removable wood handles, and effectively strengthened at bottom and sides, is available in three sizes.

For garden and other uses is a small new "R.V." centrifugal motor pump, which operates on D.C. or A.C. current by a 1 h.p. "Universal" motor. Made of hard ground forged bronze, the spindle is subjected to minimum of wear; the housing is of phosphor bronze. Sandy or foul waters do not inconvenience the pump, whereof the standard type supplies 600 gallons per hour. An automatic cut-out switch eliminates need for supervision.

The Rainbow Manufacturing Co., of 24a Jamieson-street, Sydney, still make their lawn-style spike-type sprinklers, which deliver the various sprays necessary for successful gardening.

While the "Broomrake" and the "Cultirake" remain true to the improvements recently effected, both these implements are now green enamel varnish dipped, except as to the teeth, which remain black. Owing to the new method of fixing the teeth, they are now easily replaced.

Smith, Copeland & Co. Ltd., of 33-37 Regent-street, Sydney, have available their well-known make of garden shelters with folding frame of selected hardware twice coated with oil varnish; rivets and metal fittings are galvanised, and brass eyelets are inset in the green, red or brown cotton duck which form the shelter. Folding seats and chairs for garden use also come under the "Aberdeen" brand, together with various styles of camp stools, comfortable canvas chairs, hammocks, and tents of various size.

Swans Ltd., of 304 Pitt-street, Sydney, feature their "Acme" brand of wire fences and gates, specially suitable for suburban gardens, orchards, and fields. Constructed from steel, the gates are made in single or double or special styles; catches and hinges are inclusive, and the mesh in the gates and in the fencing is in seven sizes from ½ to 4 in., and in 16, 14, 12 and 10 gauge. The "Bar" hose director and the non-kinkable English "sunproof" garden hose are offered by this firm.

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S. Walder Ltd., of 340 Pitt-street, Sydney, under their "Swagman" brand, offer a wide variety of articles in canvas and other fabrics. For orchardists are fumigation tents in ten sizes, and octagon fumigation sheets in six sizes, made of special calico manufactured for the purpose in two qualities. Greenhouse shading, 72 in., comes in heavyweight burlap; heavy, and extra heavy jute, in that order of price, all in colour billiard table green.

Melbourne

Blockey, Stone & Co. Pty. Ltd., of 268a Lonsdale-street, Melbourne, are showing a useful range of wooden garden trellises ready for use. This is an English line, supplied in 3, 4, 5, 6, 7 and 8 ft. sizes, opening to 12 ft. They are in two different meshes, which might be described as coarse and fine. Cheaper than can be built from the usual laths, they are available in any quantity from stock.

In garden tools such makes as Parkes and Brades are kept in all classes of spades and forks, while the popular make of John Brown & Sons are available for those who require a lower priced article for the home garden. The rakes and hoes as made by Wallingford and the American Fork & Hoe Co. are carried in all their numbers. The stock of slashers is very comprehensive, including as it does such English names as Parkes, Whitehouse, Brades and Steel. A useful appliance is a scuffle hoe, supplied in two patterns, diamond and square. The advantage of these hoes is that they may be used either backward or forward, having a cutting edge in every direction.

Special mention should be made of Spear & Jackson's spades, "Neverbend" brand. The steel is so tempered that although forcibly bent until almost double, they instantly return to their shape when released. It is claimed that this steel cannot be broken or bent by any ordinary means. Other tools displayed are Norcross cultivators and hand weeders, Brades' double hoe, and Parkes' special new dutch hoe, the latter being of excellent quality steel. W. A. Tyzack's reaping hooks, sickles, and scythes, with handles, are regularly kept in stock.

Weeding forks and trowels are of Joseph Tyzack's make, all patterns being available. Secateurs for every class of work are now opened: "Pexto," "Mexeur," "Reiser," are the leading ones, while good appliances are also shown of other patterns. Several Continental secateurs are meeting with a good demand, being of strong construction and most moderate in cost.

Every design of Disston's pruning saws is to be found here, and a good line of tree pruners by Joseph Tyzack. Hedge shears are of reliable English and Continental makes. Amongst an assortment of garden syringes is one which calls for special mention. This is the "Florists' Friend," an atomizer or spray which is of practical build and simply operated. A single syringe-full is sufficient to spray a rose bush, the liquid being delivered in the finest mist. The pressure is strong, enabling the material to reach every corner of the plant. The unscrewing of a nut suffices to clean the appliance when necessary. All parts are easily attended to, and the apparatus is of brass throughout.

For the coming season a supply of lawn mowers has been landed, suitable for all needs. The makes shown are the "Tasman," "Portland," "New Henley," and "Akbar."

Briscoe & Co. Ltd., of 391 Little Collins-street, Melbourne, amongst a large range of gardening tools and implements, report the following leading lines in stock.

English and American lawn mowers, in several makes, with grass catchers to fit all machines, and all spares for the various patterns of mowers.

Hand syringes for garden use are 14 and 16 in. lengths, and 1, 1¼ and 1½ in. diameter. For small orchards the "Success" style of bucket pump is suitable; these are always kept on hand.

In anticipation of the pruning period, the firm have now landed a complete shipment of the necessary appliances. Several popular makes of secateurs: Wiss's, Reiser's and Bleckmann's, are amongst the principal lines. Bleckmann is also represented by various patterns embodying important features of different types on the market. There are two useful secateurs of the long handled variety. One is fitted with steel handle, while the other is of wood. These are respectively the "Vignette" and Bleckmann's brand.

A good selection of hedge shears of 8, 9 and 10 in., and grass shears of several sizes, is available. Pruning and budding knives are of British make, and pruning saws may be had with both straight and curved blade; also the Duplex pattern.

Large stocks of other implements and garden tools generally may be drawn upon. Both D and long-handle spades and forks, of Parkes' and Brown's make, are here, and shovels of all kinds are obtainable in leading English and American brands. There are good lines in ladies' border forks and spades—those from the Brades' factory being of excellent quality. For buyers who require a less expensive tool, the "Handy" brand of John Brown & Sons are quite reliable.

Digging forks in the D handle size are of either 4 or 5 prong, and spading forks both D and long handle. There are also the usual Tasmanian forks—5 prong. Handled rakes in malleable, and steel and bow designs may be had in all the usual sizes from 10 to 16 teeth.

An assortment of gardening gloves should also be mentioned, a full supply having recently come to hand. One sample is of soft leather, comfortable to wear and lasting, while others are of cotton or a mixture of cotton and leather.

John Danks & Son Pty. Ltd., of 391-403 Bourke-street, Melbourne, stock every class of gardening tools and implements. In the firm's own factory in South Melbourne a number of appliances are manufactured. Brassware, such as hose fittings, garden syringes and sprays are amongst these products. The "Kerotin" spray pump has become familiar to hardware dealers as a useful type for the small orchard or flower garden. It has the capacity to cover quite a good area, and is withal light and compact. With the "Kerotin" pump and a kerosene tin of emulsion it is claimed that it will discharge a misty spray for fifteen minutes.

Pruning tools will now be required, and a complete supply is displayed by the firm. Disston's implements are the most used for this purpose, and this maker's various saws include the "Little Giant" pruner, the "Duplex" and the "Adelaide." Other appliances in this section are English lopping shears, secateurs for all uses, with spare parts, and grafting spades in either D or long handled pattern.

Rakes and hoes, handled or unhandled, planters' hoes, burr and vine hoes, are all stocked in either American or English patterns. The "Norcross" lines are constant sellers. The cultivator type remains one of the most useful tools for the small or large garden. Rows of small plants can be weeded closely by removing the centre prong of the Norcross 5-prong cultivator. With the centre prong removed and the remaining four reversed it forms a potato digger.

Spades and forks, digging and spading, are of Skelton or Brade make. The Skelton ladies' spades and forks are very popular. The amateur of either sex finds it possible to do all the necessary jobs in

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the garden with far less exertion by using the lighter pattern. They are strong enough for most purposes. There are also the various shears: English shears, notched, ladies' shears, and those for ordinary grass clipping. The long handled border shears make easy the task of cleaning up the edges. For more serious work, where much ground has to be covered, the wheeled pattern is preferable.

A great selection of lawn mowers is available. The "Philadelphia" is prominent amongst the higher priced machines. So is also the "Pennsylvania" in a number of designs, including a ball-bearing machine known as the "Great American." The makers of these are supplying a golf mower, specially suited for tennis and bowling greens, golf links and similar purposes. They are also responsible for an ingenious little mower for cutting the grass left at the edge of the lawn. This saves the somewhat tiring work of trimming up the borders with hand shears, one of the most troublesome jobs, and yet one which is needed to make the grass plot look its best. It is claimed that this "trimmer" will cut to within ⅜ in. from walls or tree trunks, and will mow any border wide enough to accommodate one wheel.

The choice of sprinklers for garden and lawn is now very wide. Quite a number of excellent lines are available, each with its own special advantages, or adapted to particular work. One of the most favoured nowadays is the "Rain King." Different from most others, it is simple and lasting, and may be used stationary or revolving. An adjusting arrangement of nozzle allows the spray to be delivered in any form required, while it will move in any direction needed. The firm's own "Daspyl" sprinkler trolley is for use on bowling or putting greens and tennis lawns. Standing on rollers, it cannot injure the turf, and moves smoothly wherever it is wanted.

Hawkes Bros. Pty. Ltd., of Geelong and Melbourne, have a comprehensive range of implements for the garden and orchard.

All the best known brands of shovels and spades are stocked; such makers as Brades, Parkes, Ward & Payne are represented, their various patterns constantly coming to hand. Amongst recently arrived goods are garden trowels and forks of English origin. "Daisy" grubbers or dock-lifters are handy little appliances, enabling the gardener to lift the offenders from lawn or plot without interfering with the useful growth. In the section devoted to rakes and hoes are both English and American designs in all lines, representing every need for garden or farm.

Amongst the various tools in demand for orchard use are a good selection of pruning appliances. For the new season the firm advise pruning shears of known quality such as Mexeur, Reiser and Wiss, while a supply of Boker's Reiser pattern secateurs has also arrived.

A choice of several reliable makes of branch cutters includes Bosquet, Clyde, and Vernette patterns, in addition to Bleckmann's and Boker's shears. Pruning saws comprise the different types from Disston's works, while a number of pruning and budding knives are available.

The firm are able to supply all classes of sprayers and spray pumps, as well as the necessary spraying oils for various requirements. In preparation for an early demand for lawn mowers a selection of the most popular makes is now displayed. The British "Qualcast" is in models G. and D., and American makes include the "New Crescent," "New Henley," and "Philadelphia."

The firm's special brand of garden hose is known as "Corio," and is stocked in ½, ¾ and 1 in. sizes. Other well-known makes include the "Pioneer" crackproof line, supplied in 500 feet coils.

J. S. Kidd & Co. Pty. Ltd., of 410-12 Lonsdale-street, Melbourne, have provided for the pruning season a good supply of the genuine Reiser's secateurs, with the necessary spare springs, and bolts and nuts, for replacements. They have also a range of these appliances from both Seymour Smith & Son and Mexeurs, and a cheaper Continental line.

Hedge shears are carried in the well-known Skelton brand, and every size is available. All the usual garden tools are kept in complete assortment. Spades, forks, and shovels are from Brades, Parkes, and John Brown and Son. Amongst the various types of hoes is the handled swan-necked design, in both light and heavy lines. Handled Dutch hoes are solid or stamped. Tyzack's "Elephant" brand onion hoes, known as the "Port-Arlington," and also their onion hoe blades, are amongst the best for the purpose. Thistle and rabbiters' hoes are both useful patterns, stocked in the brands of Joseph Tyzack and the Brades.

Of the cross cultivator hoes, either the 3 and 4-prong design are now opening, while a weeder which has proved a very popular line is from C. S. Norcross & Sons, called the "Outukum."

A range of English hand sprays and sprayers, as well as all kinds of garden syringes, has just arrived. Quite a good barrel syringe at a competitive price is also to be had. This is finished in dark green, stove enamelled, and should be a fast-selling article. It looks well, and the cost is reasonable. Of the larger sprays, the outstanding appliance shown by the firm is the "Millward," supplied in two sizes. Well and strongly made, it should prove popular and reliable.

In the small tools there is a well-assorted range of hand forks and trowels by foremost English makers. The "Titan" trowel, made in Australia, is also on hand. This tool has been successfully marketed, owing to its solid construction and hard wearing qualities.

Against the spring and summer months the firm are able to show a great assortment of lawn-mowers. They comprise the "Philadelphia," "Apollo," and "Diana" brands, all of which are reliable. The firm also have their own special patterns, known as the "Arcade" mower, supplied in two qualities. The machine with plain bearings has 18 in. wheels, and 5 blades, while the ball-bearing "Arcade" is of the 5-blade 9 in.-wheel type.

Among other lawn appliances there are grass and lawn shears, also grass plot edging knives, with or without handles. Special tools include Brades' draining and grafting tools, and long-handled post-hole shovels.

Mention should be made also of hose and hose fittings, every class of which is constantly available. In the fittings and accessories a very large selection is offered. It is expected that the "Dewplex" spray, which is marketed this year for the first time, will find a wide demand owing to its simplicity and efficiency. In readiness for the next season the firm are carrying full stocks of the Pope garden sprays and all accessories. This is stated to be an excellent line, worthy of the attention of retailers everywhere.

Thos. Mitchell & Co. Pty. Ltd., of 360 Lonsdale-stret, Melbourne, advise ample supplies of all garden tools and appliances. Leading English makes of spades and forks include the brands of A. & F. Parkes, Brades, and others, while John Brown & Sons' "Handy" make are of reasonable price and genuine value. In the various patterns of hoes stocked are all the English lines, and the well-known "Green Mountain" American handled implements. This latter brand is also seen in the rakes and hoes for haymaking, manure forks, and other garden and farm implements. Weeding forks and trowels are either short or long handled, and in a number of makes.

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Amongst a good selection of hedge shears, Tyzack's are prominent, the same maker being represented in grass shears, scythes and handles, and reaping hooks. An assortment of secateurs has just arrived, and all the necessary spare parts. Lawn mowers include the best-known American patterns, such as "Gem," "Blue Bird," "Atlantis," and improved style "Kaye." The firm also have their own special mower, the "Victor," supplied in either plain or ball-bearing. From their own factory they are showing a good line of watering cans. All are strong and well finished, whether of tin or galvanised iron.

Hose of all sizes and the necessary fittings will always be found in stock, as well as various patterns of reels for use in the home garden or for public lawns and greens.

McPherson's Pty. Ltd., of 582 Collins-street, Melbourne, advise full supplies of all garden and orchard appliances. Their catalogue shows practically every tool in general use, with a wide choice of makers. Spades, forks, and shovels for every purpose, are in most of the well-known British and American patterns. Stamped steel shovels, round and square mouth types are also stocked in the Australian "wheel" brand. For special trades, or specific purposes there are such tools as drain-laying spades, long socket draining tools, and grafting appliances. Hoes are supplied for weeding, grubbing, onion working, and borders. A "pull and push" hoe is a useful pattern, as also is the combined hoe and rake. The various products of C. S. Norcross & Sons, which have greatly simplified weeding operations, are regular lines.

We are now reaching the pruning period, and the various tools for this purpose will be required. The firm have stocks of Reiser, Mexeur, and Wiss's secateurs in all patterns. A useful type for fruit thinning is now available, and for orange growers there is the Wiss "Kyle" design clipper. The blades of the "Kyle" are specially curved and ground, the points and outer edges being smoothed and rounded to avoid bruising the fruit. Other pruning tools are branch cutters, standard tree pruners, and all types of Disston's pruning saws. These manufacturers are making tapered pruning saws. They are for general pruning, and especially for awkward cuts.

Lawn-mowers are kept in a large range, including the "Victoria," the "Keystone" (ball-bearing), "Regina," and "Philadelphia." The "Qualcast" English mowers are also available, a brand which has won its way on to the Australian and New Zealand markets. All sizes of these British machines are available including an excellent ball-bearing model.

A host of tools and useful appliances are shown by the firm, such as wheelbarrows of wood, or steel, hose reels, rubber hose and fittings, and garden seats. The "Raymond" wonder weeder and cultivator may be used for weeding, cultivating, planting, and thinning, as well as for other jobs. It should be ideal for the lady gardener, who does not care to carry various implements about the ground.

All the necessary spraying pumps and syringes are regularly stocked, whether for the small gardener, orchardist, or vegetable grower. Brown's various patterns still enjoy their popularity. Their hand "auto-spray," No. 26, is a good article for the home garden. It distributes a fine, dense mist, is easy to use, and simple to look after. Others for bigger areas are the No. 1 auto-spray pump, the "Success" bucket spray, and the No. 5 Auto-spray. The latter is a good all-purpose hand sprayer. It may be used for anything. Made throughout of brass, there is no danger of corrosion. The No. 5 can be used in barrel or bucket, and with a long hose a considerable radius can be covered from the one spot.

George Russell Pty. Ltd., of 452 Flinders-street, Melbourne, have opened a full range of all supplies for the orchard and garden, including a large selection of pruning secateurs suited for all uses. All numbers in the Seymour Smith patterns are now available, and other makers are also represented, such as Mexeurs, Reiser's, and "Pexto" lines. Pruning saws are the various Disston appliances for every purpose.

The usual forks and spades are always on hand, English as well as American makes being displayed in the firm's showrooms. Each season finds the lighter types of garden tools more in request, and large supplies of these in "ladies'" weights are ready for delivery. Garden hoes, Dutch hoes, trowels and forks, long or short handled, the different numbers of Norcross cultivators 3 and 5 prong —are of the "bread and butter" order, and all requirements can be met. A new tool is the "Geneva" grubbing hoe. This is a light type of implement of the mattock tribe, with a 4 ft. 6 in. handle. It appears to be just the thing for the home gardener, easy to wield, and so balanced as to be under complete control. It should make hoeing and weeding a pleasure.

Recent shipments have added to stock complete supplies of Whitehouse's hedge shears, and Ward & Payne's grass shears, also a selection of lawn edge trimmers. Sprays of different kinds will be called for shortly. Whether the small hand syringe for garden use, or the larger bucket patterns for the orchard, all are stocked by the firm. Another useful arrival is an assortment of gloves for the gardener's use; these are of either leather or cotton, or a combination of both.

Eliza Tinsley Pty. Ltd., of 640-52 Bourke-street, Melbourne, have recently opened fresh stocks of pruning shears from leading American and Continental makers. These are in a range of patterns suited for every class of pruning.

Full stocks are constantly kept of rakes, either handled or heads only. Also forks and hoes of all designs, weeders and cultivators. Garden forks and trowels are from English makers. Other garden appliances include an assortment of various shears, in Skelton's well-known make; hedge shears, and grass and border shears in all popular numbers.

English makers such as Parkes, Brades, and Skelton, are well represented in shipments of spades and shovels. A comprehensive selection of all these implements is now in stock.

A line of interest to the orchardist and agricultural worker is carborundum file No. 57. This stone is 8 in. long, with a wooden handle. It is so shaped that practically any type of tool can be sharpened with it. Because of its utility this stone has found many friends on orchard and farm, and country storekeepers are asking for it.

Vendor Trading.

Subscriber (N.S.W.) writes:—"I have purchased a business up here, and the vendor agreed 'not to start, open up or assist in any business of the same nature in the town.' There is no definite period stated on the agreement. Is this clause binding? We have been informed here that as there is no date mentioned this may be a point and he can open here. Please let us know if he coud sell the goods by auction on his own account, or on commission."

A.—The clause is binding. He could not sell goods of the nature sold in the business on commission or through an auctioneer if they belonged to him. If, however, he started as an auctioneer, he could sell other people's goods of that nature in the ordinary course of his business.

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Publications Received

Machine Tools.

The United Machine Tool Co. Ltd., of 14 Holborn Hall, Gray's Inn-road, London, W.C.1, have forwarded copies of two sectional lists recently issued by them, the one dealing with machine tools in stock, and the other with electrical tools. Both publications are illustrated. The invented word "Accuratool" in a diamond outline constitutes the brand and motto of the company.

Business Equipment.

Kenrick & Jefferson Ltd., of West Bromwich. England, are well-known as suppliers of all kinds of office equipment: desks, filing cabinets, letter trays, card ledgers, binders, files, covers, books, forms and what not. A folder received from the firm illustrates a variety of articles and materials which they furnish under this heading from tables to carbon paper. The firm have branches throughout Great Britain and Ireland, and agencies in various overseas British dominions and certain foreign countries.

Unreeling Fine Wires.

A pamphlet received from the P. E. Chapman Electrical Works, Tenth and Walnut-streets, St. Louis, Mo., U.S.A., illustrates the Chapman compensating tensionless magnet wire de-reeler, an ingenious device for unwinding all sizes of fine wires that come on spools up to 6 in. diameter. It is used in connection with any suitable winding machine or lathe, and transfers the wire from the spool to a jig or armature without trouble and without risk of stretching or breaking the wire.

This is only one of many electrical machines made at these works.

Machinery for Paper and Fibre.

In their "Machinery Catalogue No. 15" Lotz, Abbott & Co. Ltd., of 21 Ropemaker-street, London, E.C.2, illustrate some of the machines which they supply for the manufacture of cardboard boxes, corrugated paper, corrugated boxes, hard fibre suit cases, fly-wood and fibre trunks, and wooden boxes, together with others for printers, book-binders and manufacturing stationers. Printed on art paper measuring 10½ x 8, the pictures come out well and as the volume runs to 62 pages a good selection is shown. While some of the machines are simple enough, others are heavy-framed, elaborate models for performing a variety of operations. A separate price list accompanies the larger publication.

"Spalding News."

Under this title, A. G. Spalding & Bros. (Australasia) Pty. Ltd. are issuing free to sportsmen a monthly paper of sporting character. The first number for April runs to 16 pages 9½ x 6, and the illustrations include a picture of Mr. G. L. Patterson, the managing director of the company. In that gentleman's own words, the objects of the periodical are: "(1) to disseminate sporting news, local and world-wide, which will be of interest to Australians, and (2) to place the services of the Australian Spalding organisation at the disposal of all those interested in the betterment of sport." Most of the information given in this first number has to do with tennis and golf, these being the games for which the issuing company cater for the most part. Their latest tennis ball is advertised on the back cover.

The headquarters of the company are at 311 Collins-street, Melbourne, and their factory at Sunshine.

Metal Statistics.

Now in its fourteenth year, "Quin's Metal Handbook and Statistics" for 1927 is packed with information regarding the production and consumption of metals the world over, the figures in most cases being brought up to the end of 1926. Beginning with copper, the particulars are classified according to the different metals or manufactures (such as tinned plates), and a detailed index on the opening pages affords ready access to any required item or subject. "Australian Metal Statistics" forms a section of its own, the imports of iron and steel and other ferric manufactures being shown as well as the exports of industrial metals and ores. The interleaved advertisements are not the least interesting part of the little volume, for they describe many of the world's metal manufacturing and metal dealing firms, with addresses, brands, and agencies.

Compiled by Mr. H. L. Quin, the book is issued at 5/- net, post free, by the Metal Information Bureau Ltd., of 79 Mark-lane, London, E.C.3.

Scientific and Industrial Research.

The report of the Committee of the Privy Council for Scientific and Industrial Research for the year 1925-26 is now in print, and may be obtained at 3/- net from the Department of Scientific and Industrial Research, 16 Old Queen-street, Westminster, S.W.1.

This publication gives an account of the work of the Department of Scientific and Industrial Research during the year ended 31st July, 1926. It is divided into the following main sections:—

Report of the Committee of Council.
Report of the Advisory Council.
Summary of the Work of the Research Organisations of the Department.

The report is supplemented by detailed appendices giving particulars of Research Boards and Committees of the Department; statistics of grants made to individual research workers; lists of aided researches; summary of finance; information concerning Research Associations; developments in the organisation of research in other parts of the Empire; list of publications by individuals in receipt of grants; list of papers by scientific staffs of Admiralty, War Office, and Air Ministry during the year; and a list of the department's publications issued, or in the press, during the year. The report is indexed.

Parting Present.

Mr. W. McCulloch, who for many years had been manager of the hardware department of Myer's (Bendigo) Pty. Ltd., has severed his connection with the firm and accepted a position with John Danks & Son Pty. Ltd., of Melbourne. On leaving he received from his fellow employees in Myer's a very handsome Westminster chiming clock as a token of esteem. Mr. Trembath, in making the presentation, referred to the many excellent qualities possessed by Mr. McCulloch, and on behalf of the employees wished him success and all prosperity in the future. Mr. McCulloch, in responding, thanked his old associates for their good wishes and very acceptable gift.

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Electrical Section

Notes from Melbourne

(By F.M.B., 27/206).

During April, Victoria enjoyed a visit from T.R.H. the Duke and Duchess of York, and the city of Melbourne was decorated suitably by night as well as by day. No small part was played by electricity. Besides having both sides of the main streets festooned with electric lights of various colours, many shops, theatres, and public buildings were lighted in various ways.

Buildings of note included Federal Government House, Parliament House, Treasury Buildings, Commonwealth Bank, State Savings Bank, Central Railway Station, Town Hall, Fire Brigade Station, Commercial Travellers' Club, and several newspaper offices and business premises. Flood lighting was largely used, and some fine effects were secured.

The crowds who thronged the city to see the illuminations must have been surprised at the uses to which electricity can now be put. No such results could have been obtained with gas or any other available medium.

Bairnsdale is now receiving its current from the State Electricity Commission, thus adding another link to the chain of towns being supplied by that body.

From advice received, the Electrical Federation's efforts to organise a large electrical exhibition in September are meeting with success. Stands have been allotted to all classes of electrical suppliers, and the supply authorities will assist. A novel feature will be the model electrical farm. The exhibition will be held at a time when country visitors may be expected in large numbers, and electrical business ought to receive a fillip.

Notes from New Zealand

(Specially Contributed)

Central Power Board (Hamilton) has decided to raise a loan of £20,000 for the reticulation of the Te Kauwhata and Waerenga districts.

Waitomo Power Board has decided to place before the ratepayers a proposal for an additional loan of £20,000 to provide for further reticulation and the building of offices.

A reduction in the price of electricity to Wellington householders was foreshadowed at a recent meeting of the city council. The reduction is to be 1d. all round in household lighting.

From Southland comes the report that apart from the many other advantages of electric power, the Waitane sawmill finds that the cost of electricity is £200 per year lower than any other power.

Taranaki Power Board has resolved to discontinue the standby charge on all motors under 5 h.p. as from April 1, 1927, and substitute a charge of 6d. gross and 4½d. net per unit, and that all other charges remain as at present.

Otago Power Board has adopted the following minimum charges for replacing blown fuses:—Installation fuse, 1/6; range fuse, 2/-; pole fuse, 2/6; other repairs to be charged at 4/- per hour with a minimum of 1/- per call, plus material used.

Two big electric generators, the last of the machinery required for the Marlborough hydro-electric scheme, are now being installed in the power-house at Waihopai. It is anticipated that electricity supply will be available in Blenheim early in May.

The rate of interest to be charged to consumers purchasing electrical appliances has been fixed by the Poverty Bay Power Board at 7 per cent., the term of the advance to be three years; where no financial assistance is required intending consumers will be called upon to put down a 5 per cent. deposit on the estimated cost of the work.

The Electric Light Department of Timaru Borough Council estimates that the present supply system will be overloaded before the end of the present year and is taking steps to have extra supply installed ready for March, 1928. The capacity of the system will be brought up to 2000 kv.a., the total estimated expenditure being £9475.

A recently presented statement of the Waitemata Power Board's financial position shows figures well ahead of what the most optimistic of its members anticipated. Ratepayers would not be called upon to make good any deficiency in revenue, and the unavoidable period of loss while construction work was being carried out and a connected load obtained had been reduced to a minimum.

The following loans have been authorised for electrical works:—Springs-Ellesmere Power Board, £20,000. Wairarapa Power Board for electric works in the Uirinoa-Tuhitarata special rating area, £5000, and for electric works in the Lake Ferry special rating area, £2500. Franklin Power Board, £50,000. Hutt Valley Power Board, £150,000, also Otago Power Board, £40,000, £60,000 being portion of £150,000 authorised on the instalment system over a period of 36½ years.

Thanks to wireless, the isolated bush camp is now able to share in the entertainment offered in the cities. The remarkable extension of the field of the loud-speaker is shown by the progressive action of the Auckland City Council, which has installed radio sets in the construction camps at the Hina Valley and Waitakere waterworks. Workers in these way-back camps will now be able to tune-in to concerts in New Zealand cities or gather in entertainment from Australia or even America.

Wanganui-Rangitikei Power Board reports that the total revenue for February was £4908, as against £3947 in February last year. The increase over last year's returns is being well maintained, while the figures on the installation of electric ranges also

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show a satisfactory increase. The connected load represented by 438 ranges (February, 1927) was 2828 kw., being more than equivalent to the industrial motor load. The total connected load, including lighting and heating services, now exceeds 12,000 kw.

Franklin Power Board's report on the work carried out during the last twelve months shows that the following mileage of distribution lines were completed:—Route miles of 11,000 volt lines, 114; low tension lines under 11,000 volt lines, 82 miles; separate low tension lines, 49 miles; a total of 245 miles; 11,000 volt line poled but not wired, 24 miles, 11,000 line poled and wire but not livened, 14 miles.

The number of sub-stations at present in operation is 92, with a total transformer capacity of 1485 kv.a. Demand far exceeds anticipation.

Tararua Power Board has set up a committee to investigate a novel suggestion put forward by its secretary-manager. The idea is that the board should set up a bakery to utilise its night load, since the board has substantial means at its disposal, including a convenient building, while apart from supplying water-heaters the night load at present goes begging.

The bakers in the town, it was stated, refused to consider installing electric plants themselves, as the cost of an oven suitable for baking 200 loaves would be in the neighbourhood of £750.

The Government has announced that the additional source of electric power for Canterbury and North Otago will be the development of a scheme on the Waitaki River, about four miles above Kurow, the site being about forty miles from Oamaru. The initial installation will comprise two generating units of 15,000 kw. each, while the ultimate capacity of the project is about 68,000 kw.

A dam, approximately 50 ft. high, will be built, and in the future stages of development low dams will be built at the outlet of the three lakes, so as to regulate the flow at all periods. These dams will become part of the extensions, as it is intended to erect power stations at the lake outlets.

Christchurch Municipal Electricity Department has adopted an alternative tariff for electric water-heating which allows of current being used for unrestricted hours at a flat rate of £1 per 100 watts per year. The previously existing rates, based on meter readings and restricted hours, are still available, but it is expected that the new rate will find widespread favour. Although temporarily reducing the demand for time switches and sundry equipment, this move should tend towards the ultimate benefit of the consumer and of the electrical trade as a whole.

The Electricity Department has recently reduced the price of current for domestic cooking from 1½d. to 1d. per unit, thereby making the rate the lowest in the Dominion. A reduction in lighting rates also is foreshadowed.

Southland Power Board has adopted a novel suggestion put forward by the secretary (Mr. Chas. Campbell), the object of which is to demonstrate how successfully the board's customers have adapted themselves to the use of electricity for cooking purposes. It is suggested that the board should authorise its officers to promote a home cooking and baking competition amongst users of electric ranges, a series of prizes to be awarded for various classes of cookery.

According to the proposal, the entries will form the central exhibit in a comprehensive electrical demonstration, which will include the fitting-up of ranges and various electrical apparatus, also the testing of electrical appliances. The display will be held during Winter Show week, and the board has voted £10 towards the prizes.

Auckland Power Board is viewing with a good deal of concern a statement from the Minister of Public Works that hydro-electric power from Arapuni will not be available before the end of 1928. As this is nine months later than the date for which the department contracted to deliver power to the board, it means that the normal extension of electricity demand cannot be met next winter.

It was pointed out by the Minister that the contractors for the Arapuni development (Sir. W. G. Armstrong, Whitworth & Co. Ltd.) had evidently under-estimated the difficulties of obtaining a satisfactory coffer-dam between the river and the power house foundation excavation, and consequently were very much behind on that section of the work.

The Arapuni contract was let in August, 1924, the terms providing for completion of the work in three years and the delivery of power seven months later, namely, on April 1, 1928.

The Month's Cablegrams

Copper, Tin, and Silver. — The following table shows the quotations at the undermentioned dates, compared with those of the corresponding periods last year:—

Date.	Copper. Electrolytic. Per Ton. 1926	Copper. Electrolytic. Per Ton. 1927.	Tin. Standard. Per Ton. 1926.	Tin. Standard. Per Ton. 1927.	Silver. Standard. Per Ounce. 1926.	Silver. Standard. Per Ounce. 1927
	£	£	£ s. d.	£ s. d.	d.	d.
Mar. 30..	66¼–66⅜	62½–62⅝	282 2 6	309 7 6	30⅛	26⅛
April 4..	64⅜–65½	62–62½	287 17 6	311 7 6	30	26⅛
,, 11..	64½–64⅝	61⅞–61⅞	279 12 6	305 2 6	30	26⅜
,, 19..	65–65½	61½–61¾	285 7 6	306 2 6	29⅝	26¼
,, 26..	64¼–65	61½–62	279 7 6	294 6 3	29½	26⅛
,, 29..	64½–65½	61–61½	274 7 6	294 2 6	30	25⅝
May 4..	64¼–64⅜	61¼–61½	268 7 6	296 7 6	31	25⅜

The stocks of tin in the United Kingdom at the end of April were 12,816 tons, the deliveries for the month 2100 tons, the quantity on spot 658 tons, and the quantity afloat 1750 tons.

Lead.—In the London market soft foreign lead on spot has been quoted as follows: April 4, £27/3/9; April 11, £26/15/-; April 19, £26/17/6; April 26, £25/17/6; April 29, £25/11/3; May 4, £25/13/9.

For the month of March the imports of lead into the United Kingdom were 22,504 tons, including 6221 tons from Australia. The exports reached 1317 tons.

Spelter.—The spot quotations for spelter, as cabled from London, have been as follows: April 4, £29/17/-; April 11, £29/10/-; April 19, £30/2/6; April 26, £29/2/6; April 29, £29/2/6; May 4, £29/3/9.

Tallow.—Following are the statistics for April, and particulars of the latest auction sales:—

April	Casks.	Date.	Casks Offered	Casks Sold.	Mutton, Med., per cwt.	Beef, Med. per. cwt
Imports		Apr. 6	1541	982	34/3	34/3
Deliveries		,, 13	1454	1437	34/6	34/6
Stock		,, 20	Nil			
		,, 27	1364	631	35/-	35/
		May 4	1062	457	35/-	35/-

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LONDON AGENCY—63 Ludgate Hill, E.C. 4.
NEW YORK AGENCY—T. B. Browne Ltd., Aeolian Hall, 33 West 42nd Street.
NEW ZEALAND REPRESENTATIVE—Mr. C. W. Carroll, 25 Panama Street, Wellington.

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Advertisers will kindly note that all alterations to Advertisements should reach us by the 25th of the month.

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Voices of the Trade.

"I would like to mention that I read your special Easter issue with pleasure and much interest. The articles appealed to me as bright, informative and well selected." So a New Zealand correspondent (72/207).

Knowing What the Public Wants.

The big part of a merchant's job is knowing what the public wants, but he should be able to ascertain when the public ceases to want it. Certain lines of goods have a vogue and as surely lose their appeal and the merchant who does not keep a watchful eye on the demand and inquiries for goods will sooner or later be caught with stocks that he cannot get rid of. These are the real losses in doing business. When the sales on any item show a continued falling off in spite of efforts to move it, keep the stocks of that item at a minimum; but on the other hand, when sales or demands show a steady increase, stock to fit that demand. Don't lose sales by being out of goods. Lost sales mean lost customers in a remarkably short time.

New Paint Remover.

An effective paint and varnish remover can now be made by a process discovered and patented by Dr. Max Phillips and Mr. M. J. Goss, chemists of the Colour Laboratory, Bureau of Chemistry, United States Department of Agriculture, who have completed an investigation on the utilization of para cymne, which comes from an oil obtained as a by-product in making paper pulp from wood.

The oil from which the new paint and varnish remover is made was, until recently, almost wholly an economic waste. It has been variously estimated that 750,000 to 2,000,000 gallons of this material are annually produced in the sulphite pulp mills of the United States. The paint and varnish remover is prepared by mixing para cymne with grain alcohol, wood alcohol, and acetone, in equal parts by volume.

The most effective method for removing paint and varnish is to apply the new remover to the surface to be treated, and after three to five minutes the softened paint or varnish may be very easily removed by means of a scraper.

This new paint and varnish remover has been patented by Messrs. Phillips and Goss, and dedicated to the people of the United States, thus making it possible for any one in the United States to make and use the new remover without payment of any royalties to the inventors.

The Measure of a Merchant.

The customer is entitled to what he pays for, no more and no less.

One of the big reasons for chain store success lies in the fact that the chain managers insist on their clerks giving accurate weight and measurement.

And yet—only a few weeks ago I saw the proprietor of a hardware store wrap up 18 ounces of nails for a customer who only asked for a pound. A little later he sold a yard of wire cloth, and the piece he cut off measured fully 38 inches.

When he finally found time to talk to me, he opened the conversation with a wail about inadequate profits. He flayed the manufacturers and jobbers unmercifully for not putting him in position to profitably meet chain stores and mail order competition.

When I suggested that possibly some of the responsibility of his lack of profits rested on his own shoulders he was righteously indignant. "No, sir—the fault was all a matter of small margins." No other explanation would satisfy him.

We are willing to concede that wider margin in some items of hardware would be most acceptable. We still believe, however, that, margin or no margin, there are no profits in 18-ounce pounds and 38-inch yards.—"Hardware Age."

Foreign Exchanges.

Foreign rates of exchange in London for cable transfer on the centres and dates indicated, compare as follows:—

Par.	—	—	May 23	May 26	May 30	June 2
4.886	New York	Dols. to £	4.85 11/16	4.85 11/16	4.85 11/16	4.85 3/4
4.866	Montreal	Dols. to £	4.85 1/4	4.85 3/8	4.85 3/16	4.85
25.225	Paris	Frcs. to £	124.00	124.00	124.02	124.00
25.000	Brussels	Bels. to £	34.95	34.96	34.96	34.96
25.225	Rome	Lire to £	88.75	88.75	88.85	86.65
12.107	Amsterdam	Florin to £	12.13 3/8	12.13 1/2	12.13 3/8	12.13 1/4
12.107	Batavia	Gul. to £	12.13 1/4	12.13 1/4	12.13 3/8	12.13 1/4
18.159	Stockholm	Kron. to £	18.15	18.15	18.15	18.15
18.159	Oslo	Kron. to £	18.81	18.79	18.69	18.71
18.159	Copenhagen	Kron. to £	18.20	18.19	18.18	15.18
20.43	Berlin	Gmks. to £	20.50	20.50	20.50	20.49
24	Calcutta	Pen. to rup.	17 13/16	17 13/16	17 13/16	17 13/16
24.58	Yokohama	Pen. to yen	23 1/16	22 13/16	22 5/8	22 7/16
*	Hongkong	Pen to dol.	24 3/8	24 1/4	24 1/4	24 1/4

* Par depends on rise and fall in price of Silver.

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A Certain Seller

CALCIMO

THE ORIGINAL COLD WATER KALSOMINE

Wholesale Distributors for Victoria:

BROOKS, ROBINSON & Co. Ltd.

59-65 Elizabeth Street, Melbourne

Editorial

Canberra

In 1901 the Duke of Cornwall and York, now on the throne as King George V., inaugurated the Commonwealth of Australia by opening the Federal Parliament in Melbourne. Another stage in Australia's political development was marked on May 9 of the present year when His Majesty's second son, the present Duke of York, opened the new Houses of Parliament at Canberra, the Federal Capital, thus accomplishing the task which had brought him and the Duchess to these shores. The seat of government has been transferred to the new city, where Federal laws will now be passed and whence Federal departments will be administered.

The Federal Capital Territory, with Canberra at the head rather than the heart of it, is an area of 940 square miles taken by arrangement from New South Wales for Federal Capital purposes. Already over £12,000,000 have been sunk in preparing it for occupation. "Sunk" is the right word, for much of the money has gone to provide water supply and sewerage and other underground services. Temporary buildings have been erected for the accommodation of the Parliament, and homes put up for such members of the civil service as must reside at headquarters. Even before the transfer the population of the territory was about 5000, and before long it will be twice that number. What the city may be, as a city, twenty-five years hence no one can tell.

Much is expected from Canberra, or rather from the changes which it betokens, by the people of Australia. A contemporary cartoon in one of the daily papers represents the six States as boys dancing hand in hand round a tombstone on which is inscribed, "Sacred to the memory of State provincialism which died on May 9, 1927." Dead and buried is it? "'Tis a consummation devoutly to be wished." And expected? We are unable to think so. Further time and experience will be needed, we fear, to allay petty jealousies and promote a true Federal feeling. All that we can venture to hope is that the influence of Canberra may tend to overcome foolish mistrusts and foster unity of mind and purpose. Any disadvantages suffered by the other States because the Federal Parliament was housed in one of them have now been removed. We believe these others exaggerated the effects of the temporary arrangement, but be that as it may the thing has come to an end. A new and important stage has been reached, a new and promising start made. May the hampering influences of yesterday be forgotten as men gird themselves for the tasks of to-day and the possibilities of to-morrow.

The Obligations of Industry

"The World's Work" for March contains the report of an interview with Mr. Gerard Swope, president of the General Electric Co. When some five years ago Mr. Swope became president, his first work, we are told, was "to establish intimate contact with department heads and with the rank and file of the employees." His practical experience, coupled with long-continued study, entitle him to speak on the responsibilities of modern industry.

Like Mr. Henry Ford, another American of "big business" interests, Mr. Swope begins with the public. The first duty of the business man lies there. He accepts the view that industry is not primarily for profit but for service. "The responsibility of industry to the public is not only for a comprehensive service, including quality of material that is furnished, but more important that its attitude shall not be complacent but forward-looking. Society, in testing the efficiency of any organisation, is going to measure not only its service, but also its continual and progressive reduction in prices of its products to the public. This means the application of intelligence and of science to the problems before us, and it means the introduction of better methods in industry so that without reducing the earnings of labour we can still reduce the selling prices."

The second responsibility of industry is to the employees. Adequate earnings for the working man comes before conditions of work, before hours of work also, important as these are. "Modern industrial management now recognises quite clearly —and specially in America—that nothing we can do will compensate for inadequate earnings on the part of the workman. And we have learned that the sure way, the only way, to safeguard adequate earnings is to bulwark our employees, our workmen, with mechanical and electrical power. The thing that distinguishes modern industry in America from that of England or France or Italy or any other country in the world is the much greater power that we put in back of the working man." But besides maintaining wages and providing power, industry must remove some of the worries of the working classes, by facilitating life insurance, by encouraging home ownership, by providing means of thrifty investment and by addressing itself to the "grievous problem" of unemployment.

Industry's third responsibility is to the shareholders, the people who provide the means without which management and workers would be helpless. "What shareholders want is a fair, regular, and uniform return; and what management wants is a

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return to shareholders which, when they need new capital for the extension of their business, or for new tools of production, will cause such new capital to be forthcoming." If industry is to secure such help from its shareholders it must be prepared to tell them frankly and fully just what it is doing and with what results. The principles and policies of the management must also be disclosed if the confidence of shareholders is to be retained. Shareholders have no wish, generally speaking, to interfere in the details of any undertaking, they are not qualified to do so, but their adhesion depends upon the extent to which they feel they can trust those upon whom its conduct devolves.

Fourthly and lastly comes the responsibility of industry to itself—"the duty of perpetuating itself as an instrument of production and as a source of livelihood of its employees. It calls for every effort of management for scientific investigation, to improve processes and seek better methods, to broaden the interchange of ideas with others in the same industry, and to do all other things that may give the institution a more solid foundation and more far-reaching contacts with the community."

We have quoted freely from this utterance because we believe it sets in their right order the obligations resting on industry, and reflects the attitude of its present day leaders whether they have given expression to their views or not. In so far as it does so it obviously registers a noteworthy change of opinion, a sense of "stewardship," that suggests greater things for industry in days to come even as things are. For with all parties given full consideration and fair treatment we cannot imagine the present "capitalistic system" being set aside in favour of something untried and wholly speculative.

Real and Trade Names.

A curious complication over the use of a real name as a trade name, had to be dealt with by the court in the recent case of Professor Dr. G. Jaeger v. The Jaeger Co. Ltd. (43 Times L.R. 220). This decision is of practical trade and business importance, because there are, doubtless, many other similar instances where an original proper name has acquired a new meaning by its use in regard to goods, and where it will become a guiding principle and precedent. The plaintiffs, who were the Professor and his family, by their action sought a declaration as against the defendant company that they were entitled to use the word "Jaeger" upon, and in connection with, articles of clothing, and analagous goods, and to trade in that name, provided that they took reasonable precautions to distinguish their goods and business from those of the defendants' company. On their part, by their counterclaim, the defendants asked for an injunction to restrain the plaintiffs from passing off their business or goods as those of the defendants, by the use of the name "Jaeger," or otherwise. It was shown that some forty years ago, an English limited company was formed for the sale of "Jaeger" goods.

The Professor's idea was original, and consisted in the use of animal, instead of vegetable fibre, in the making of articles of clothing and bedding, which he considered would be more sanitary. The English company made agreements with the plaintiff, as the inventor of this method and system, and so their manufactured goods became known by the name of "Jaeger." In 1925, the plaintiff comapny, composed of the Professor's family, opened a shop in London for the sale of clothing, etc., under his name, and in 1926 they began this action to regulate their trading position. Mr. Justice Romer, who heard the case, now held that the meaning of the word "Jaeger" as applied to goods of this nature, had ceased in this country to be descriptive, and had come to denote the goods of the defendant company. He further ruled that the plaintiffs were entitled to the declaration as asked, qualified, however, by the insertion after the word "Jaeger" of the words, "as part of their business name." In conclusion the judge also held that the defendant company were entitled to their injunction as asked for in their counterclaim, so that the plaintiffs would be restrained from passing off, by their use of the name "Jaeger," their own goods as being goods manufactured by the defendant company. There had been some confusion over the use of the name which should now be ended. The judge made no order as to costs upon defendants' counterclaim.

"Necol" Plastic Wood.

In a previous issue mention was made of an American firm who announced a mouldable pulp that can be worked like putty, and handled like wood. Word now comes from Ammunition (Nobel) Pty. Ltd., of Melbourne, that they are sole Australian representatives for this product.

"Necol" plastic wood, as it is termed, is manufactured by Nobel Chemical Finishes Ltd., of London. It is described as a mouldable material of the consistency of thick paste or moist dough, which hardens on exposure to the air into a tough, solid waterproof substance. When applied to a clean, dry foundation of wood or other material it adheres firmly without showing any tendency to powder or blister, even when exposed to moderate heat. It should be applied in thin layers, each layer being allowed to harden before applying the succeeding layer. A slight shrinkage occurs during the hardening process.

Owing to its rapid drying properties it must be kept in tightly closed tins, and not exposed to the air more than is absolutely necessary until it is used. A warm atmosphere reduces the drying period. Drying must not be hastened by exposure to fire, as inflammable vapour is given off during hardening.

"Necol" should prove most useful to the pattern maker, as it may be moulded to any form, and when set hard can be worked up with the usual tools in every way similar to wood. Fillets, either straight or in the most intricate curves, can be modelled quite easily with the fingers, or a hollow tool. The material may be shaped with wood-working tools, or turned in a lathe, or finished with file and sandpaper.

It is also claimed that it is not affected by changes of temperature, and that it will not peel or crack like other filling materials. It may be finished with stain, varnish or paint. A special softening fluid is supplied to remove it from the fingers in working, and if it hardens in the tin it can be again softened quite easily. It adheres firmly to metal, and may be applied in thin layers to provide for the strengthening of existing parts and for allowance for contraction of castings and machining of parts.

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Inquiry Column

TRADE INQUIRIES

During the month we have supplied answers to the inquiries indicated below. Firms with whom we have not already communicated who hold any agency connection with the firms, or handle any of the lines mentioned in this section, are invited to furnish us with particulars so that our lists may be complete.

Information Wanted.

U.S.L. Batteries.—Name and address of agent wanted.

"Rob Roy" Stoves.—Name and address of makers wanted.

Hickeroid Handles.—Name and address of manufactures wanted.

Cycle Fittings in Metal.—Names and addresses of Australian manufacturers wanted.

W. S. Tyler Co., Cleveland, Ohio, U.S.A.—Name and address of Victorian agent wanted.

Wooperman Enamelware Co., Germany.—Name and address of Australian agent wanted.

Russell-Jennings Manufacturing Co., Chester, Conn., U.S.A.—Name and address of agent wanted.

"Glover" Rabbit Traps.—Name and address of manufacturers' agent or wholesale distributor wanted.

Charles Taylor's Tools Sheffield Ltd., Bishop-street, Sheffield, England ("Screw" brand tools).—Name and address of agent wanted.

Information Supplied.

Elgin Clock and Watch Co.—Name and address of agent supplied.

Goodwin & Co., Birmingham.—Name and address of agent supplied.

Sargent & Co., New Haven, Conn., U.S.A.—Name and address of agents supplied.

Tool Handles, "Blue Mountain" brand,—Name and address of manufacturers supplied.

Remington-U.M.C. Cartridges. — Name and address of Australian agent supplied.

C. G. Bonehill, Birmingham (guns and rifles).—Name and address of agents supplied.

Cleveland Twist Drill Co., Cleveland, Ohio, U.S.A.—Name and address of agent supplied.

Brass Screws for driving into an untapped hole.—Names and addresses of agents supplied.

Iron Swinging Deck Chairs.—Names and addresses of manufacturers in Melbourne supplied.

Kirkstall Shafting (Kirkstall Forge Ltd., Kirkstall, near Leeds).—Name and address of agent supplied.

Shurly Dietrich Co. Ltd., Galt, Ont., Canada ("Maple Brand" saws).—Names and addresses of agents supplied.

LEGAL INQUIRIES

Both in Melbourne and Sydney we have made arrangements with lawyers of good standing in their profession to answer through this journal any legal queries addressed to us. Readers who meet with difficulties are requested to state these as clearl as possible.

An Infringement Question.

A dealer in the country buys from a town firm and offers for sale an article which is subsequently shown to infringe a certain patent. Would the dealer—who had no knowledge or intent on of fraud—be liable as well as the wholesale merchant, and, if so, has he any remedy against the latter?

A.—(1) The dealer would be liable, although he acted in ignorance. (2) We cannot find that any remedy against the vendor has been obtained in any case, although, as a matter of justice, a purchaser should be able to recover.

Persons and Corporations.

In certain statutes the word "person" includes any corporation, whether established by charter or under any act of Parliament. Is a partnership a corporation in Australia as it is in Scotland.

A.—A partnership is not a corporation in Australia, but as the singular includes the plural the word "person" would include a partnership.

Correspondence

For this column we welcome contributions on any matter of trade concern. Letters may be published anonymously, but in every case the name and address of the writer must be disclosed to the Editor. We do not necessarily indorse the opinions expressed by any correspondent.

Income Tax in Great Britain.

To the Editor, "Hardware and Machinery."

Sir,—The Finance Act 1926 differs from those of previous years in that there are few provisions which affect the liability of foreign residents as far as the year 1926-27 is concerned. The far-reaching provisions giving effect to the change of basis of assessment from the average of a number of years to that of the previous year do not come into force until 1927-28.

The Act does not repeal any of the provisions under which relief can ordinarily be claimed, and, therefore, repayment may still be claimed under the following headings:—

(1) Exemption in respect of dividends on certain British Government securities where the beneficial owner is ordinarily resident abroad.

(2) Exemption in respect of interest or dividends on foreign or colonial securities, stocks, etc., owned by a person not resident in Great Britain or Northern Ireland.

(3) Reduction or exemption from tax on income from sources within Great Britain and Northern Ireland in the case of a British subject, Crown servant, ex-Crown servant, widow of Crown servant, servant of British Protectorate, employee of missionary society, resident in the Isle of Man or Channel Isles, or resident abroad for sake of own health or health of member of the family.

(4) Reduction of tax where income tax has also been paid on the same income in another part of the Empire. In particular the provisions of Section 23 of the new Act will relieve many taxpayers who have suffered considerably owing to the double taxation of Irish income; but claims for relief may still be lodged for the years 1923-24 to 1925-26, which fall outside the scope of the agreement between the respective Governments.

Yours, etc.,

W. R. Fairbrother,
Income Tax Specialist.

67/68 Cheapside,
London, E.C.2,

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Sundry Credits

By J. Knibb.

How the trouble in China has affected the blacksmiths in London was told recently by "The Morning Post." Although some of them might not have known it, China was their ultimate market for discarded horse shoes. They sold them to dealers who sent them to China, where the best prices were obtainable. But with the Chinese refusing to unload British cargoes, this outlet has been closed, and within a radius of two miles of St. Paul's Cathedral horse shoes are accumulating by the hundred or hundred-weight. Just how or why the Chinese were prepared to pay more than other people for such scrap material does not appear. The fact remains, however, and naturally enough the London farrier is on the side of the peacemakers so far as China is concerned.

Members One of Another.

* * * *

Which, or where, was the first railway in Australia? It was recently claimed that this honour belonged to the line from Sydney to Parramatta, which was opened on September 26, 1855. The Commonwealth "Year Book" (No. 6, p. 681) speaks of the completion of the first line in 1855, but does not say where the line is to be found. Probably it was the Sydney-Parramatta connection, which was, I believe, the first State-constructed railway in Australia. But evidence exists of an earlier line, the line connecting Melbourne with its nearest port, Sandridge, as it was then called. This line, laid down by the Hobson's Bay Railway Co., was opened for traffic on September 13, 1854. Before long the Government of Victoria began to build railways, and this pioneering private line was acquired as part of the State system.

Railway Tracks—

* * * *

For this first steam railway in Australia, carriages and wagons from England had been delivered in Melbourne. But four locomotives were delayed, and the directors of the company placed an order with a local firm, Robertson, Martin, Smith & Co., and entrusted the making of parts of the boiler to another local firm, Langland's Foundry Co. The resulting locomotive of 30 h.p. was completed in ten weeks, and was the first one built in this part of the world. On the opening run it attained a speed of fifteen miles an hour, but between bad fuel and accidental mishaps it never did much good. Towards the end of the year its condition was hopeless, and the railway had to be closed until the arrival in 1855 of the four locomotives ordered from England. Long prominent in the engineering trade of Melbourne, Langland's Foundry Co., whose help was enlisted, disappeared many years ago.

—And Locomotives.

* * * *

Throughout the Australian Commonwealth the Duke and Duchess of York had a great reception —warm and hearty and universal. Not so the postage stamp issued in connection with their visit, or rather, their opening of the new Houses of Parliament at Canberra, the Federal capital. Adverse criticism and nothing else! It sins negatively and positively, so we are told. No king, no duke, no commemorative significance. It is weak in drawing, insipid in tint, and flabby in texture. All this is said, and a good deal more, sometimes in limping verse. The kangaroo issue of a day gone by was not more severely handled. Speaking for myself, I confess I rather like the new stamp. Made of poor paper, I admit, its pleasing design and subdued colouring are, to me, commendatory features. But then I am not one of the illuminati.

Philatelist or Philistine?

* * * *

Alas, that the heavenly art of music should be sullied by practices that are of the earth earthy! This profound reflection is evoked by a tale from Old England. In a Gloucestershire village an aged street musician was allowed to leave his fiddle in a certain shop while he went for his dinner. During his absence a well-dressed stranger entered the shop, saw the fiddle, and played a few bars on it. Wonderful! Beautiful tone! A Cremona in deshabille! He'd give £20 for the instrument. As he couldn't buy it then for sufficient reasons he promised to call again. Returns the street fiddler, who with much hesitation and many regrets sells his precious fiddle to the shopkeeper for £18. But the prospective customer returns not, and the goodhearted ten per cent. shopkeeper is left with a magnificent fiddle valued by others at 12/6. The curtain falls with the band playing a little piece in the key of two sharps.

A Musical Tragedy.

* * * *

In his latest book, "Dollars Only," Edward A. Bok speaks of the rush of American life, and says it is ingrained. The boy sees his father reading headlines and snippets, and his mother dishing up prepared foods, both for the same reason—want of time. As soon as he goes to school he has to learn so many words, do so many examples, read so many lines. Quantity is everything; quality is disregarded. "No matter in what direction the boy looks he sees a nation in a hurry, everybody is rushing, how to do a thing not in the best way that it can be done, but in the quickest way: short cuts to achievement. He sees automobiles madly speeding; people crushing and pushing into subways and street-cars; long journeys annihilated on fliers; men speeding through the air and boasting of the minute and second they can cut out from some previous record. So the boy naturally falls in; he speeds through school, rushes to college, races through his four years, and approaches the business of life with every fibre in his being attuned to haste."

Quantity v. Quality.

* * * *

Taking a breather before opening a fresh section, Mr. Bok proceeds: "When he gets into business he finds the gospel of quantity attuned to the *n*th degree. Every step of manufacture is gauged by the amount of a day's work, and how far below or above it is compared with the quantity produced on the same day last year. If the 'room' has produced more the executive is praised; if the output is less by comparison, it is either received with silence or he is asked why the production is falling behind. Rarely is the question asked: 'Is the product better?' A man's efficiency is gauged and based on how much he can produce. Never mind if our cloths can bear no comparison with the English cloths; our looms produce so many yards to their lesser quantity. No matter if our automobiles cannot stand up on the road as long as those of foreign make: our boast is that we produce ten to their one." From the same pen came some years ago, "The Americanization of Edward Bok"—a very interesting volume. If after this outburst the de-Americanisation of Edward Bok is demanded, I shall not be surprised.

Candid Criticism.

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Novelties and New Samples

"Hi Speed" Floor Cramp.

From the Steel Nut & Joseph Hampton Ltd., of Wednesbury, England, comes a fine floor cramp, known as the "Hi Speed." Several special features make this cramp of interest to the trade. It has been designed with a view to combine the necessary strength with a lightness and simplicity which should recommend it to users. Fitted with a tubular lever, the cramp is of high grade malleable iron throughout. It takes joists from 1½ in. to 3½ in., and the approximate weight is 17 lb. The machine will cramp each side of the joist on an angle up to 50 degrees.

This is another of the well-known series of "Woden" appliances, made by the company who are represented by Edwin Wood Pty. Ltd., of McEwan House, Melbourne, and elsewhere.

"Ewbank" Mangle Improvements.

For their 1927 models, the manufacturers of the "Ewbank" mangles (Entwistle & Kenyon, Ltd., of Accrington, England), have made available certain patented improvements. These include extension arms, a removable ironing board, a smoothing iron rest, stowage brackets and a sleeve ironer. The first four of these go together at an addition to the price of 20/-, while a further 7/6 secures the patent sleeve ironer, which, with the ironing board, can be placed in the stowage brackets when not in use. All these fittings are applicable only to the folding mangles with wood tables—not to machines with enamelled steel table tops.

Guthrie & Norton Ltd., Box 2666 G.P.O., Sydney, and Box 478, G.P.O., Auckland (N.Z.), are the representatives in this part of the world.

"Sure-Grip" Rabbit Trap.

Thos. Mitchell & Co. Pty. Ltd., of Lonsdale-street, Melbourne, are the sole proprietors and distributors for Australasia of a new design in rabbit traps, the "Sure-Grip." With this trap there is little chance of escape, either through "legging" or evasion. This quality is secured by the formation and method of closure of the teeth. Instead of a sharp, cutting edge, the teeth are so designed as to overlap in a firm grip. This will not permit the animal to release itself with the loss of a leg.

It is pointed out by the suppliers that the constant watching of traps to avoid this trouble frightens many rabbits away. An inspection of the new idea, which is patented throughout the world, shows that the jaws do not meet abreast as in other patterns. One jaw, called by the makers the "comb jaw," is opposed by another with a plain edge, an ingenious way of ensuring strength of hold without the danger of severing the limb. Of British manufacture, the trap is sold at a reasonable price.

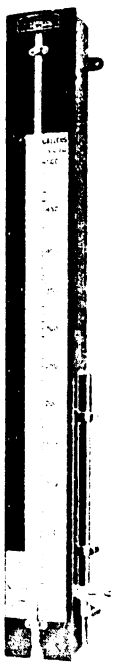
"Good Line" Tools.

Colin Maxwell & Co., Aberdeen House, 204 Clarence-street, Sydney, have received several new lines from Ewald Ahrem, "Good Line" manufacturers, Elberfeld, Germany. These include sheet steel trowels for pointing, brick and plasterers' use, and fine nickel plated wire workers' pliers which differ from the regular V-shaped article in so far as the jaws remain parallel when opened, enabling users to retain a constant grip. They are obtainable with or without cutters. Lopping shears are in two patterns, either over or undercut, and foot rot shears in heavy pattern. Chucks to take bit stock drills in addition to the usual three-jaw chuck for round shanks and cutting nippers with jaws ⅜ in. and ½ in. wide for wheel spokes complete the range of this manufacturer.

Samples of hold-all braces, suitable for either round, square or flat bits, and another new type of brace in plain or ratchet, with entirely new chuck, which will ensure tight and accurate centring of bits, will be displayed shortly.

"Pneumercator" Tank Gauge.

An instrument to indicate at a distance the quantity of petrol or other liquid which is in the tank or container will be of interest to many.



The "Pneumercator" tank gauge indicates the stock without any dipping, the contents in gallons being read in the office. Already in use on oil-fuelled liners, and in stores and garages, it will deal with every sort of liquid.

The use of the dip rod is troublesome, especially at night, while the risk of fire is always present. By means of the "Pnuemercator," the stock of petrol, benzol, oil or any other liquid may be seen at all times without a visit to the tank. One gauge fitted with two scales may be used to indicate two tanks, with either the same or different contents.

The gauge is connected by a small solid drawn tube which carries air only. The type illustrated is specially designed for garage tanks and kerbside plants. It is maintained that the appliance is perfectly accurate, simple to understand, and inexpensive. In practice it may be used for any class of fluid, and any class of container.

The "Pneumercator" is manufactured and supplied by the Precision Engineering Co., 62 Little Collins-street Melbourne.

British and Continental.

Among the new samples shown by Mr. Louis A. Scott, of 200 Castlereagh-street, Sydney, are the following.

B. E. Siegheim, London, is the maker of the "Elfin" vacuum flask, produced from what is termed reinforced steel glass. It is practically all glass with an all glass drinking cup which fits separately over the screw cap covering the cork. The maker claims that the article is unusually strong and well made, and that the silver-like appearance will never tarnish. A similar line, also provided with an all-glass cup, is made with metal container and nickel fittings. Both lines it should be mentioned are provided with screw cap and cork.

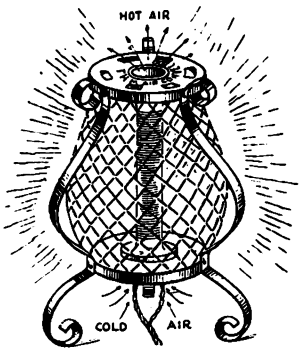
Grah & Plumacher, Solingen, Germany, are introducing the "Gotta" brand razors, made and ground by them from the finest Sheffield steel. The blades are round pointed and come in ½, ⅝ and ¾ in. widths. The whole range is fitted with white xylonite handles. To introduce this line Mr. Scott is temporarily carrying a small stock.

The French Wreath Co., of Islington, London, are manufacturers of metal and porcelain wreaths and cases, together with a long list of florists' sundries. The samples shown are excellent, and the cases, which are of new high-domed design, are claimed to be dust, dirt, and damp-proof. They are fitted with pneumatic rubber tyre and specially moulded metal band and beaded edge. The trade may find fair sale for these among widows and friends of fallen soldiers represented by local war-memorials, as well as for civilian graves.

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New Electric Radiator.

Thomas Abbott & Co., of McEwan House, Melbourne, who are well-known as the makers of the T.H.M. electric bath heater, have marketed an



electric convector radiator which possesses some interesting features.

From the illustration it will be seen that the design is quite away from the ordinary style. It is so constructed that the central cone radiates hot air from every side and also from the top. A number of people can sit round it and share equally in the warmth.

The makers state that this radiator will comfortably warm a room 18 ft. x 18 ft. with a consumption costs of 800 watts (less than 1 unit) on 200/250 volts. With frame and feet of well finished oxybronze, the entire appliance is strong and light.

Cartland Brass Foundry.

Mr. Harold R. Richardson, who has recently been appointed Australian representative for James Cartland & Son Ltd., brassfounders, Birmingham, is now displaying, at Broughton House, 181 Clarence-street, Sydney, a complete range of samples, comprising hinges of various kinds, barrel bolts, cabin hooks, casement stays and fasteners, superior lines of door handles in all finishes, and much other builders' and general brassfoundry. This manufacturer's No. 8150 patent re-fortis butt hinge, fitted with washers and pin, is now produced with five joins in place of four, an innovation stated to still further prolong the life of the hinge. A departure has been made from their former heavy cast hinges in the form of machine made lines, but a heavier gauge metal is used than generally obtains in similar class goods, while the prices, we are informed, compare favourably. "Micris" fanlight openers listed in the firm's advertisement in this journal, supplants their well-known "Simplis" pattern, being more generally adaptable and easily operated. It is suitable for any window up to 2 ft. by 2 ft. or equivalent area. Their popular "Preston" fanlight openers are also on view, together with their favourite "Convertible" and "Invisible" patterns.

Early last year the works of the firm were wholly transferred from Constitution Hill to Armoury Close, Bordersley Green, the premises having been designed on the most modern lines, and all departments practically reorganised. The layout is such that the movement of men and materials is reduced to a minimum. Founded 125 years ago, the business is still owned by the Cartland family, although Mr. J. Howard Cartland, the chairman of directors, is the only surviving member of the second generation. The managing director is Mr. Charles Y. Hopkins, by whom the new works were designed.

Continental and Canadian.

Rinne, Harris Pty. Ltd., of 434 Collins-street, Melbourne, represent a number of overseas manufacturers, one of the most important being the Bergische Stahl-Industrie, of Remscheid, Germany. That firm's B.S.I.G. malleable fittings take a high place amongst such goods on the Continent and elsewhere. The Australian distributors are McPherson's Pty. Ltd.

From R. Ditmar, Brunner Bros. Ltd., of Vienna, Austria, come a large selection of lamps and lampware. These include some fine brass lamps of various designs, glassware of every description, and hurricane lanterns. Many of the electric globes, and indirect fittings, are of handsome materials, decorated and tinted in a fine range of shades and tonings. Kerosene lamps are a feature of these makers' goods. Many of the hanging types are unique in design and finish.

Ferdinand Schuchhardt, of Berlin, produces telephone and telegraph equipment and instruments, including switchboards and all fittings. An interesting device is the "Telegraphon," an instrument which is attached to the telephone, and actually records the conversations. There is also the "Burophone," for use in either homes or business houses. A special receiver is used, and the words spoken are amplified so to be heard plainly wherever required. The executive of a firm is thus able to communicate with any part of the establishment, while in the home instructions may be conveyed to servants or others.

C. Behrens, of Alfeld-Leine, Germany, shows a range of wood shoe lasts of all kinds. Many special types are available, the finish of all the lines being excellent, and prices moderate.

Herm. Kochenrath, of Remscheid, supplies artisans tools. Carpenters' braces are of many patterns, other lines being secateurs of exceptional value, files, plyers of all kinds, and wooden planes.

A Canadian firm, Hi-Speed Tools Ltd., of Galt, Ontario, are makers of steel chasers for the Landis threading machine.

A machine which should be of interest to box makers is that manufactured by Bohm & Kruse, of Bremen. These people specialise in box-nailing machinery, and a catalogue of their appliances shows that a type suitable for every class of wooden box is supplied.

Other products from various makers represented are wire ropes, electrical fittings, gas cylinders, and lamp wicks and technical porcelain.

F. Schichau, of Elbing, Germany, is a manufacturer of heavy machinery, including sugar refining plants, steam engines, locomotives, and water turbines. He is also a shipbuilder, and several of his suction dredges are now operating in Australia.

An important range of cutlery, by F. W. Stosberg, Erben, a leading Solingen maker, includes razors, pocket and pen knives, and hair clippers.

Iron tubing is the principal product of the Rohren-Verband, Dusseldorf. In the samples on view the construction and fine grain of the metal are conspicuous. Tubes up to 2 in. are butt welded, while those over that size are drawn.

"Newcut" Finishing Paper.

As Australian representatives for John Oakey & Sons Ltd., London, H. S. Ingamells & Co., of 408 Collins-street, Melbourne, are now handling a new line of finishing paper which has been given the name of "Newcut." It has been used extensively by the English trade for some time now in the finishing of body building of motor cars, general coach builders' work and for other purposes. Put up in sheets 11 x 9 in. in size, it is claimed to maintain the high standard of the products of the house of Oakey.

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Pottery and Glassware

Early Troubles in the English Glass Trade.

Many complain to-day of what they regard as unnecessary restrictions on industry, but we are free at least from one of the troubles that irritated the early glass manufacturers. As told by the "Pottery Gazette and Glass Trade Review," a hundred years ago a Mr. Thomas Webb, of Lancashire, England, built some glass furnaces at Ancoats, where he made excellent table glassware, and the concern flourished. Later Mr. Webb's son, Thomas George, joined him in the business, and when the day's work was over, Excise officers sealed the doors so that work could not be continued at night in order to evade the tax which was then levied on glassware. The same Excise men broke the seals in the morning when work was commenced. We are also told that when George Stevenson commenced to revolutionise transport with his railways, he experienced difficulty in keeping lamps on the roads burning properly, and asked Mr. Webb if he could make glass bowls to fit round the lights. The answer was in the affirmative, and for many years he and his son supplied all the glass protectors used for the railway lamps. This probably denotes the first introduction of lamp glasses. Lenses were later made at these works for ships' use, and this work, coupled with the manufacture of household and fancy glassware, brought prosperity to the firm. On the same authority we learn that 50 years ago there were 27 glass furnaces in Lancashire, and the industry flourished, and some of the finest of glass maker's art was then produced in that county. Since, however, a gradual decline has been experienced and to-day the industry has dwindled to a comparatively few firms, but among those remaining are Molineaux, Webb & Co. Ltd., successors of Thomas Webb.

English and Continental.

Budden, Cruttenden & Neale Ltd., of 189-91 Clarence-street, Sydney, have been appointed Australian representatives for J. Steventon & Sons, Royal Potteries, Burslem, England, on whose behalf they are displaying a comprehensive range of dinner and teaware, and toilet ware. The decorations are in floral and squares, the colourings being beautifully executed. A feature is that the manufacturers have made a departure from the ordinary border designs, the colour scheme covering the entire surface. Willow patterns in blues and tints are very conspicuous. Fancies include some very fine effects in Crown Derby, the dominant note in the decorations being floral and fruit with an overlay of gold. Jugs are nicely finished with dark blue spouts and handles, with gold lining at the top. This setting-off of brown jugs gives a rich appearance.

Shore & Coggins, Edensor Works, Longton, England, are represented by a large display. Two new shapes in "Oban" and "Club" are nicely designed with litho of every hue and gilt edges. An advantage is that all fittings are modelled to match. "Duchess" shapes in Egyptian effects of burnished gold over variegated colourings make a delightful showing. No two designs are alike.

The Crown Potteries, Burslem, who specialise in teapots, jugs, and fancies, are well featured. Mottled and banded with colours in low and tall "Globe" and "Cresswell" shapes are the teapots and jugs, while other decorations are provided in green base with gold, also mottled blue base with gold leaf and chrysanthemum. Russets are also finished with gilt effect round the handles and spouts.

Another new agency is that of E. Wotzel & Co., a Czechoslovakian firm. Cut crystal, their main line, covers water sets, vases, fruits, salads, powder bowls, and cruets. The cuttings are varied in style and design, and the crystal is of fine clearness. Economically priced and guaranteed hand cut, these articles should interest buyers.

American and British.

Mr. Louis A. Scott, of 200 Castlereagh-street, Sydney, has lately received several new lines from the United States Glass Co., Pittsburgh, U.S.A., and Morley, Fox & Co. Ltd., Stoke-on-Trent, England, besides having opened ranges representing new agencies.

For the United States Glass Co., ornamental and utility articles produced in rose pink with transparent and satin finishes, will offer suggestions for presentation purposes. Most of the satin finish lines are decorated with small parrots in natural colours and delicate floral border lines in black. Table toilet sets of various shapes, candlesticks, vases, baskets, fruits, and cups and saucers indicate the range of goods here comprised. A patented novelty from these manufacturers is called the "Cosmopole" breakfast dish, consisting of a nappy and plate in one piece made in crystal, green, or pink glass. Several new designs in ornamental pieces have been added to the long list of their well-known black satin glassware, which is distinctive both in design and finish, while in their kitchen lines a combination lemon squeezer and pint measure jug in opal glass has been added, also in the same material are mixing bowls of deeper pattern than usual to avoid spilling the contents. Quite new is a pint size glass beater bowl. It is shaped not unlike a small flower pot, is transparent, and graduated for cups and ounces.

Morley, Fox & Co. Ltd. are showing new dinner services with new-patterned round vegetable dishes, floral decorations and, in honour of the recent visit to England of the Australian Prime Minister, these are named the "Bruce" service. Another new line from this firm is squat jugs in a variety of semi-solid colours and decorations; also pantry jars in white earthenware. The latter are made to take the place of painted or enamelled sets for holding cereals, sugar, salt, etc.

Clappertons Sons Co., Deseronto, Ont., Canada, are well represented by a large collection of superior crystal cut glassware. Bowls, jugs, vases, tumblers goblets, sugars, creams, sandwich trays, and other articles are included in the range. The goods are noteworthy for their heavy cutting, yet eloquent beautiful designs where the proportions of plain glass is left to balance the appearance as well as emphasise the cutter's handicraft.

Staffordshire Pottery.

Woollett & Ross, of 119 York-street, Sydney, have recently received a new range of dinner and tea sets in china and earthenware from two of their principals: Alfred Meakin (Tunstall) Ltd., Staffordshire, and Redfern & Drakeford Ltd., Balmoral Works, Normacot, Staffordshire. The former is noticeable for the introduction of dinner sets with which fruits are combined in a new octagonal shape known as "Newfield." The designs in some instances are exclusive, and one very pleasing example is a combination of flowers expressed in yellow, red and blue surrounding a neat outline of an eastern garden tea house. Variations of this pattern are

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shown in other sets, both with litho and enamel printed decorations on fine bodies. Fine durable glazing is a speciality of this firm, as the burning is effected in a manner which will withstand any household usage without crazing. A line of Indiana introduces a variation in dark blue decorations which is very effective. Several new patterns are likewise shown in Bleu de Roi, with rich blue ribbon borders bearing a fine red diamond pattern. A distinctive novelty is seen in new shaped tea pot and milk jug, which go with a tea service produced in silver ivory tone. The design is very smart and attractive, being modelled on long graceful Grecian lines. This true ivory body is a change that will be appreciated from the hitherto popular white body.

Redfern & Drakeford Ltd. are represented by standard patterns of the regular white and gold teas, but a new black decoration combined with gold lines, which is very neat, effects an attractive innovation, and is likely to be favoured. Other lines from this firm show new decorations both in litho and enamel, the latter being particularly bright, precisely finished and the bodies are noticeably clean. They also introduce new ideas in Crown Derby ware and a number of new rich designs are shown in presentation tea and coffee sets. Royal blue and gold and other colour combinations are finely distributed among the many different shapes, comprising both medium and high-class qualities.

Pottery and other Kitchen Ware.

A. Oppenheimer & Co., of Malcolm-lane, Sydney, are showing additions to their long list of pottery and glassware on behalf of several overseas manufacturers.

Harrison & Phillips, Burslem, England, are represented by some new lines of dinner, tea, and salad sets. Distinction is claimed for the "Jewel" Derby decoration, a rich combination of royal blue, red and gold with suggested jewel effect in the design. In the salad sets a fruit saucer is introduced as an extra where required. This is mostly acceptable as it is made with a broad concave rim to receive the stones of fruit. Among a large range of vases and jardinieres is a line having a beautiful turquoise blue base with a delicately traced band of fleur de lis in white and panels of grouped fruits in natural colours. In the same shapes are black grounds with bright rose decorations, also (in jardineres only), a rather cleverly painted clouded sky scene, and coloured birds, which is quite new and very pleasing. The high glaze of all these lines is particularly fine and free from air blemishes.

Belgian glassware moderately priced, of good shapes and colour, comprise various patterns of tumblers, wines, jugs, and other vessels, including tapered neck hygienic water bottles with flanged tumblers to fit closely over the neck of bottles. These are offering in several sizes.

New lines from Czechoslovakia bring back some neat latticed rim china salads, plates, comports and sandwich trays which are highly finished and decorated with artistic figure groups in the centre. Similar goods were in favour in pre-war times.

In a large collection of table and ornamental cut glassware are some novel cruets having three and five bottles set in nicely designed shoes, birds, fish and other shapes forming the tray.

Eveson Bros. Ltd., Lye, England, show some particularly fine enamelled ware which is evenly coloured in either red, blue and green, and sometimes a black line is effectively introduced as a finish to the rims and handles. These lines include cup, saucer, and plate sets, mugs, teapots, slop pails and candlesticks in shell, ivy leaf and other novel shapes. The teapots and slop pails are obtainable with cane-wrapped handles when desired.

From Birmingham, England, the firm have recently received a comprehensive range of kitchen tinware covering practically every requirement and introducing loose bottom non-burning cake tins in all standard sizes. The range also includes fancy cake cutters in several new shapes, and icing sets for blowing the icing on to cakes, each set being supplied with six pipes for effecting different decorative designs.

No Vacations for Stock or Capital.

(From "Hardware Age.")

Vacations are worth while. Every human being who works faithfully throughout the year deserves and needs a vacation. The best interests of the firm he serves demand that he be given a short period of relaxation.

Every merchant needs at least one vacation each year. Without it he is almost sure to grow stale on the job. He needs to get away from his business for a time and then come back to it with a new viewpoint, backed by fresh ideas and better vitality.

But there are two factors in every retail store which do not need a vacation: stock and capital.

A vacation builds up a man, but it undermines a stock. Loafing put the "shelf-worn" label on merchandise. It makes it older instead of younger.

Stock must keep moving in order to stay alive.

Capital should never be allowed a "day off." Work does not wear down capital; it builds it up. Capital can only grow through staying on the job.

Being out of necessary stock not only gives capital a vacation, but it also affords a holiday to sales, and some sales holidays become permanent.

Place the human element of your business, including yourself, on a regular vacation schedule, and let nothing but sickness interfere with that schedule. But—keep your stock and your capital constantly on the jump.

It is The Only Way to Win.

Indolence.

I believe that youth is the time for hardness, not for softness, and that the harder a young man works the happier he will be.

A great man once confessed to me that he was incurably lazy as a boy. How did he get rid of his defect? He asked his father to whip him whenever he fell into an indolent mood. His father, a stern Yorkshireman, was nothing loth. He laid on the lash! That well-whipped boy was Sir Edward Harland, the founder of Harland & Wolff.

Be hard on yourself! That is my advice to the young men who write me letters full of self-pity. Wring toil out of your poverty. Let the wastrels and the shirkers have their fun. They will pay the penalty later.

Do not let your will go soft. Draw up an iron time-table and stick to it. Nail your time-table on the wall and allow no leakages. In a month you will be master of yourself. In a year you will be a man.

It is well to grasp the certainty that you will have few rivals if you refuse to go soft. The man who disciplines himself eliminates most of his competitors. He places himself among the elect. He becomes a member of an exceedingly small aristocracy.

It does not matter what he is, or where he is, or whom he is, for everywhere he is being searched for and sought for. The big things of life invariably discover the big men because there are never enough big men to go round.—London "Express."

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Make the Advertising Pay

A Page of Hints and Helpful Criticism

Send Us Your Ads ∴ Let Us Solve Your Problems

Watch Your Headings

"George! George!!"

Everybody in the office got busy, for was not that the Chief calling for the "jack of all jobs"?

George was "senior junior clerk," to use his own designation, and one of his duties was to write the advertisements. And an advertisement was required for the morrow.

Mainly because they did without one, the firm—although long-established—was not big enough to employ an all-time Ad-man.

George got the job because of his faculty for selecting good headings—at least, that was what the Chief said. It happened thus. The firm had an agency for a certain dentifrice, and George had been reading that three out of every four persons suffer from pyorrhoea. George promptly had a brain-wave, and took it to the Chief: "What could be better," he said, "than a picture of a fat bookmaker calling the odds of "3 to 1"?

The Chief was delighted, and commissioned George to complete the advertisement. George got the picture drawn, and wrote the dope himself, filling it with all the racy terms at his command, and his vocabulary on matters equine was most extensive.

The result was a masterpiece that was put by for the next occasion. George soon found use for it, but it didn't occur to him that the theme was rather inappropriate in a Sunday School magazine.

If a heading does not attract favourable attention, and hold it sufficiently long to cause the advertisement to be read, it is worthless. Therefore, make your headings appropriate and attractive; make them work for you! They must be strong irrespective of the text. In other words, see that they are short, sharp, and to the point; a few words are easier read, understood, and retained in the memory than a dozen or more.

In as short a sentence as possible suggest a benefit, a use, or some such selling point. If the commodity be one for which there is always a steady demand, its name and price may be used to advantage.

PURE GARDEN HONEY, 8d.

will attract the housekeeper more than

GIVE THE CHILDREN A TREAT.

Of course, it would be quite impossible to lay down a set of rules for the purpose. Some writers select a heading and weave the story around it, while others write the copy and then choose a suitable heading. Whichever method you adopt it is a good plan to make reference to the strongest selling point you can find.

For instance, an advertisement for a patent long-handled scrubbing brush, designed to save women from stooping, might well be headed "SAVE YOUR BACK," and be illustrated with a woman working the machine. Such could hardly fail to attract any woman interested in housework. Or a petrol saving device might be advertised "HALF THE PETROL—TWICE THE MILEAGE," provided that such was a true statement.

Whatever you do, don't be vague in your meaning. Use good plain English that can't be twisted or misunderstood. And avoid vulgarity—unless you wish to appeal to vulgar customers. Some years ago a well known city firm advertised

SO-AND-SO'S TROUSERS DOWN AGAIN.

Many people laughed, but it is doubtful how many sales it effected. It certainly offended some folk; and in business no firm can afford to do that.

Here are a few examples of good headings, selected at random.

TOBACCO IS HURTING YOU.

DANDRUFF? NOW YOU CAN CONTROL IT.

KILL STATIC—Leak it underground.

SHOW IT—AND IT'S SOLD.

The last one was an appeal to the retail trade.

The two advertisements given below would have been much stronger by the suggested rearrangements. The first is an example of a vague heading.

The fine, clear tone and volume of the Kellogg Symphony Reproducer is due to the Kellogg unit with the magnetic diaphragm control. This exclusive principle has produced CLEAR TONE and VOLUME.

Exclusive Kellogg Principle.

YOUR OWN INITIALS
Stamped on this 6 ft. Steel Tape.

By dropping the first line more room would have been available for bolder heading, and when it is considered that this advertisement



was crowded in amongst a lot of other small ads., the stronger type would have made it more attractive.

Landed.

The following paragraph from a London newspaper has been going the rounds:—

The proprietor of a shop thought it would be a good idea to sell fishing tackle in addition to the leather for which his shop was already famous. Accordingly, he bought a large supply of the latest tackle, and had a printed notice to the following effect hung in the shop window:—"Splendid Fishing Tickle." A man entered the shop one day and pointed out the spelling mistake. "Hasn't anyone drawn your attention to it before?" he inquired during the conversation. "Hundreds," replied the proprietor, "but practically everyone who drops in to tell me about it buys something." The caller took the hint, then, seeing that he had been caught, hooked it.

To the Advertisement Writer.

In writing an advertisement be cautious; in displaying one, be bold.

The advertisement writer's most valuable asset is faith in the thing he advertises.

Good display never saved a bad advertisement and the worst compositor alive can't wholly kill a good one.

Don't underestimate the subtle power of suggestion; it is oft-times more effective than persuasion.

Don't be too original. The man who differs radically from his fellow men is occasionally a genius but usually he is a freak.

When your friends in the advertisement business pat you on the back and tell you that your advertisements are "clever," it is time to brace up and write something that will sell goods.

Study words; to the writer they are what colours are to the painter. Don't use a chrome yellow word if a lemon yellow word will express more exactly the idea you wish to convey.

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Personal and Social

Departmental Changes.

Mr. R. J. Bain, for many years manager of the engineering tools department at McPherson's Pty. Ltd., of Melbourne, has been appointed the company's general manager in Adelaide.

Mr. R. E. Fiddy, for some years in charge of the general tool department at McPherson's Sydney warehouse, succeeds to Mr. Bain's place in Melbourne.

New Appointments.

Mr. H. A. Martin, late of Gollin & Co. Ltd., Sydney and Melbourne, has joined Carr & Elliott, 204 Clarence-street, Sydney, where he takes charge of their hardware section, assisted by Mr. F. G. Proctor as interstate traveller. The latter has lately come from England, after having spent some time in gaining knowledge and experience in several of the works of the firms represented by his new employers.

Changes on the Directorate.

Mr. R. Thornton has been appointed managing director of Mate's Ltd., general merchants, Albury, New South Wales, and Mr. A. J. Blogg has been appointed a director. Mr. Thornton, a director of several years' standing, has been with the firm for 41 years, for 37 of which he has been manager of the grocery department, while Mr. Blogg has been for many years manager of the hardware department. Mr. D. A. Thompson is the governing director of the company.

Fifty Years with the One Firm.

On April 30, Mr. Edward Lees celebrated his fiftieth year of continuous employment with Briscoe & Co. Ltd., of Melbourne. Commencing in the company's warehouse on April 30, 1877, "Ned" Lees, as he is known to his friends and fellow-employees, is one of the most familiar and most respected figures in the hardware trade in Melbourne. His spring cart is as well known as the man himself, and both are still in good working order.



Mr. Edward Lees

To commemorate his jubilee in their service, the firm have presented him with a cheque and gold medal, and his portrait is to hang in the managing director's office with those of two other members of the staff having a similar record. One of these, Mr. Barry Collard, died soon after his jubilee celebration, but the other, Mr. Robert McLean, is still in charge of the builders' department, with over sixty years' service to his credit.

When Mr. Lees joined the staff, the warehouse of Briscoe & Co. was at the spot in Collins-street where The Block Arcade is now found. He recollects that at that time the building, a tall, narrow edifice, was just being demolished to make room for a new structure. Later on he was transferred to the iron yard, which, at the period, was managed by the late Mr. Henry Gardiner. There he took the position of foreman. The yard was then in Elizabeth-street, adjoining the section now occupied by "The Argus" newspaper. This corner was the site of the Church of England, which owned a large frontage in each street.

In his younger days Mr. Lees was a keen shot with the gun, and he recalls bringing many a bunch of quail into the warehouse after a day or two in the country. He still has the Greener smooth bore which he purchased from his firm in the Collins-street days. This was supplied, he says, at cost price (£25), and is still as good as ever. No one but he himself has ever used it.

Since Mr. Lees came to the firm, almost all the hands then in the employment have passed away. All the principals of those days have also gone. His own good health he attributes to the fact that he has never used liquor or tobacco in his life. The cold winter days on his cart are no trial to him, and he boasts that nobody has ever heard him complain of the weather. He is attached to the iron yard at West Melbourne, and is still one of the first on the job in the morning.

Although his employers have indicated that he is welcome to retire without anxiety for the future, Mr. Lees says he is happier at work. His many friends and associates will wish him further years of life and health.

Fully Four Score.

Mr. William Frederick Lloyd, who died at his residence in Pittwater, Sydney, on May 18, was for many years in the service of F. Lassetter & Co. Ltd., now out of business, where he held a responsible position. On his retirement from that firm he entered business on his own account as a commercial broker. The deceased was a native of Sydney and had passed his eightieth year. His father was for many years superintendent of the Government Dock at Cockatoo.

Brush Manufacture

Improved Method for Setting Bristles.

For some little time overseas manufacturers have been making paint and varnish brushes with a vulcanished rubber setting. Until recently this class of brush has been imported only for the use of tradesmen in special work. Now the method has been adopted by an Australian manufacturing firm, John Zevenboom & Co., of 335 Elizabeth-street, Melbourne. After a good deal of experiment, they are in a position to produce all grades of brushes by this method.

The machinery alone for the application of vulcanised rubber setting is costly, and considerable expense was involved both for plant and investigation before the firm added this process to their production outfit. There have been many brushes offered with what is known as rubber setting, but the efficient application of the accurate vulcanised setting is scarcely possible without close attention to method, and careful testing of all points to secure the desired end. The correct vulcanising is imperative.

The advantages of this method are undoubted. One in particular is the absolute security of the hair in any paint or varnish, and the almost entire absence of loose hair, which is so annoying when in use.

The firm are now able to supply this class of brush in various qualities and thicknesses to suit all requirements of buyers and users, and at prices to meet the demands of any particular class of trade.

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News from Abroad

Patent Acquired.

Edgar Allen & Co. Ltd., Sheffield, have acquired the sole manufacturing rights for the British Isles in the J. W. Barnes patent floating straight shank drills. With the Barnes straight shank drills, according to the March "Edgar Allen News," tests have been made which show that 80 per cent. of the breakages can be saved; 50 per cent. more feed and speed can be obtained; and the drills cut smaller holes and last 100 per cent. longer than with other methods of drilling. Tests have been made in a double column machine eliminating all spring, and even here the floating and centring of the drill was proved to do 50 per cent. more work.

The Iron Industry in Sweden.

From "The Swedish Economic Review," for February last, we take the following note:—

"In the last issue of this 'Review' it was pointed out that the depression under which the iron industry has suffered for many years continued during the first half of 1926. During the latter part of the year, however, the indirect effects of the English coal strike brought about a slight indication of improvement. Prices hardened, though inconsiderably, and production and sales increased."

A tabulated statement appended shows that while the year's production was slightly greater than in 1925, it still fell much short of the figures for 1913. The output of pig iron was 62 per cent., of malleable half-products 70 per cent., and of rolled and wrought iron 72 per cent. of the 1913 totals.

Rotary Machines for Diamond Diggers.

A minor industry has developed in Johannesburg in connection with the diamond diggings at Lichtenburg, an engineering firm being engaged in the manufacture of diggers' rotary machines. These rotary machines, known on the diggings as "mixers," are used for churning the gravel and to separate the wash (which is subsequently sorted) from the residue. Ten of them have just been manufactured by J. Barr & Co., of 200 Commissioner-street, and have left for the diggings. Another fifteen are in hand and all have been sold. A feature of these rotaries is the adjustable top bearing secured to the upper part of the machine by plates, which are easily adjusted. All the machines are gas welded. They are made in two sizes—4 ft. 6 in. and 4 ft.—"Industrial and Commercial South Africa."

Nettlefolds in South Africa.

Mr. W. R. Lysaght, a prominent director of Guest, Keen & Nettlefolds Ltd., the powerful British steel and iron combine, is at present in South Africa to get more details of the Union Government's proposal to establish a State-controlled iron and steel industry. Such a proposal, if carried out, would probably affect his firm considerably. The tendency in a number of the Dominions was to develop their own iron and steel resources. Canada and Australia had adopted these lines, and his firm had found it expedient to open up branch establishments in those countries. Before Mr. Lysaght returns to England he will confer with the Government with a view to ascertaining whether it will be to his firm's interest and the interest of other British concerns, to open up business here.—"Industrial and Commercial South Africa" for March.

Iron Company Director and Income Tax.

Mr. S. R. Lysaght, formerly managing director of John Lysaght Ltd., iron founders and engineers, Bristol and Cardiff, successfully appealed before the Master of the Rolls, Lord Justice Sargent and Lord Justice Lawrence, against a decision of the Commissioners of Inland Revenue and of Mr. Justice Rowlatt that he was resident in the United Kingdom and liable to income tax. In 1919, Mr. Lysaght partially retired and went to live in Ireland, only coming to England for occasional business visits as an advisory director of Lysaght's at a salary of £1,500 a year. He had also visited Australia and South America on behalf of the company. The Master of the Rolls said the case was analogous to the merchant who went to a market town or a barrister visiting an assize town in the course of his business, and a man might repeatedly visit a country and yet not acquire a residence.—"The Hardware Trade Journal."

World Production of Crude Petroleum.

The American Petroleum Institute estimates the world's petroleum production in 1926 at 1,096,608,000 barrels, compared with 1,067,566,000 barrels reported by the Bureau of Mines for 1925, an increase of 29,042,000 barrels, or 2.7 per cent.

The United States produced 775,000,000 barrels in 1926, or 70.7 per cent. of the total world production, compared with 763,743,000 barrels, or 71.5 per cent. of the world production in 1925. Production in 1926 showed an increase of 11,257,000 barrels, or 1.5 per cent.

Mexico produced 90,000,000 barrels in 1926, or 8.2 per cent. of the world production. In 1925 Mexico produced 115,515,000 barrels, or 10.8 per cent. of the total production that year. The decrease in Mexico in 1926 amounted to 25,525,000 barrels, or 22.1 per cent.

In 1926, the United States and Mexico combined produced 78.9 per cent. of the world production, and in 1925, 82.3 per cent.

Brazil's New Industries.

From recent developments it would seem to be abundantly clear that the Brazilian Government is intent on pursuing a vigorous policy of encouraging local industries. Fortunately the contemplated developments are hardly such as are likely to interfere with Brazilian imports from Great Britain; in fact, British machinery manufacturers stand to benefit by the number of important orders for plant and equipment which must eventuate. At this moment the Brazilian authorities are giving serious consideration to an application for the granting of monopoly rights for the chemical treatment of locally-produced fibres, and for the manufacture of rope, sacking, string, etc. If the present proposals are accepted, all necessary machinery, constructional materials and tools will be admitted free of duty over a period of fifteen years. For the artificial fertiliser industry official help has already been promised, and a number of inquiries for the necessary machinery are now circulating in the United Kingdom.—"The British Export Gazette."

Chinese Antimony.

Sikwangshan, Hunan province, is the chief antimony producing centre of China. The mines have been worked since 1900, producing and exporting

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various quantities of the metal during recent years, as shown in the following table:—

Year.	Production in Tons. Antimony	Stibnite, etc.	Exports in Tons. Antimony	Stibnite, etc.
1923	4805	643	9642	3008
1924	8015	311	10164	898
1925	10495	1036	14400	2326

The price of antimony fluctuates widely, according to market conditions, though a steady advance has been recorded in the past few years. In 1920 a ton of antimony was sold on the Hunan local market for not quite $100 (about £10), but the quotations went beyond $200 a ton in 1924, and reached as high as $500 a ton early in 1926. A movement is now on foot to organise a co-operative selling agency for the mining interests with a view to maintaining the prevailing high level of prices.—"The Chinese Economic Bulletin."

[These are the figures actually given in the publication from which we quote. Assuming their accuracy, the fact that exports exceed production can only be explained by the accumulation of stocks between 1900 and 1923.—Ed.].

British Displays of Foreign Goods.

Last week the Department of Overseas Trade held exhibitions of foreign samples of manufactured goods, on sale in overseas countries, at Birmingham and Wolverhampton. The one at the Chamber of Commerce, Birmingham, was of a comprehensive character, and included samples of tinned hollow-ware, aluminium hollow-ware, rubber goods, builders' and cabinet makers' brassfoundry, electric resistance units, and agricultural tools. Most of the articles were of German manufacture, but there were also examples of American, French, and Belgian productions. Many are capable of production on profitable lines in this country, and a number were lent to Birmingham makers with a view to their manufacture. Edge tools, matchets, axe-heads, spades, and aluminium hollow-ware were exhibited at Wolverhampton. Most of the aluminium ware was of a very poor quality, and much of it could not be durable. One exhibit, presumably of aluminium, was a bundle of chopsticks weighing 8½ ozs., and costing 2⅝d. As to the matchets and sugar-cane knives, of German and American origin, the opinion was expressed in the trade that British makers were fairly well able to compete.—"The Hardware Trade Journal," April 15.

Automobiles in America.

According to the latest returns there are now, or rather there were at the beginning of 1927, 22,046,957 passenger cars, trucks and 'buses and 128,782 motor-cycles registered in the United States, or one motor vehicle to every 5.4 persons throughout the country. The States having over one million vehicles each were as follows:—

New York	1,815,437
California	1,600,475
Ohio	1,510,000
Pennsylvania	1,463,261
Illinois	1,370,573
Michigan	1,118,785
Texas	1,047,202

Michigan and Texas only came into the million class during the year 1926. The increase for the year in the registrations of cars and trucks was 2,189,042 units, or 11 per cent., but in motor-cycle registrations a decrease of 11,633, or 8.3 per cent. was experienced. While the car advances the cycle declines. "The ratio of Ford production continued to decline, being only 36 per cent. of the 1926 total." Only 36 per cent.? It is still more than a third of the whole.

In licence fees and gasoline taxes it is estimated that owners and operators of motor vehicles contributed the enormous total of $449,821,000 to State exchequers during the year, or $78,000,000 more than in 1925. These figures suggest the magnitude and growth of the trade.

Old Horseshoes in China.

In connection with the London "Morning Post," comment on China's import trade in discarded horseshoes, the following information may be interesting. The import of old horseshoes into Shanghai alone has often aggregated as much as Tls. 75,000 a year in value. The commonest use for old horseshoes is the manufacture of Chinese razors and knives. Razors made of horseshoes which have been hastily forged and tempered for a cheap market, often show traces of the old nail holes of the horseshoes in the thick edge of the blade. Old horseshoes seem well adapted for the manufacture of the Chinese razor, which at best is a crude, unpolished device with a blade an inch and a half wide and two inches in length, and some quarter-inch in thickness at the top edge. Horseshoes form only a small portion of the total Chinese imports of old iron. Rusted and worn-out metals of all shapes, including such things as railway spikes which have outlived their usefulness in service, are imported in great quantities and are fabricated into crude native nails—which, instead of having a flattened portion as a head, are curled over at one end—and a thousand other odds and ends of ironmongery.

This note, taken from "The Chinese Economic Bulletin," an official publication, answers a question raised by a correspondent on another page. The Haikwan tael, a term used for an uncoined weight of silver (583.3 grains 1000 fine), has ranged in exchange value from 6/4 to 3/7 sterling within recent years. At 5/- the 75,000 taels mentioned above would equal £18,750.

Coventry.

"To-day Coventry supports a population of well over 135,000, is a leading centre of the vast British motor and motor-cycle industries, and takes an important part also in the production of engineering requirements, machine tools, metal castings, drop-forgings, textiles, etc. It supports this greatly increased population, moreover, at a very much higher standard of living than formerly prevailed. The inhabitants are better fed, better clothed, better housed, and better educated than in days even when large charitable gifts and bequests were available for these purposes."

The foregoing is quoted from an article by the town clerk of Coventry which appears with other information about the city and its industries in "The Empire Mail" of March last. In addition to the 135,000 mentioned by this official it seems there are another 10,000 people living outside but employed in the city, and who will go to swell its population as soon as dwellings are provided. Efforts are being made to extend the boundaries of the city from 4147 to 20,000 acres so as to provide for further expansion.

An old town in leafy Warwickshire with various relics of the past meeting the eyes of the visitor, Coventry in modern times became the centre of the British cycle-manufacturing industry, and with the introduction of the internal combustion engine, of motor vehicle manufacture. Beginning with the Daimler Co. Ltd., quite a number of firms have established themselves in Coventry as makers of motor-cars, or adapted their plants to that industry. But as indicated above the city is by no means confined to that particular line. Among the works described are those of Alfred Herbert Ltd., world-known as makers of machine tools.

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Interstate General News

Big Railway Bridge.

A steel bridge is to be built across the Clarence River at Grafton, New South Wales, at an estimated cost of £400,000. The Railway Commissioners are finding the money, and an early start with the work is anticipated.

Victorian Master Ironmongers.

The Victorian Master Ironmongers' Association have moved from 62 Little Latrobe-street, Melbourne, to 145 Queensberry-street, North Melbourne. This applies also to the business agency connected with the association, Hardware Supplies Pty. Ltd. The secretary and manager is Mr. L. W. Tulloh.

Display of Australian Manufactures.

The Chamber of Manufactures of New South Wales proposes to hold an eighteen days' exhibition of Australian-made goods, in the Royal Agricultural Showgrounds, Moore Park, Sydney, commencing on Saturday, December 10. The exhibition will be held in the Hall of Industries and the Hordern Pavilion.

Strike Follows Dismissal.

Because of the dismissal of a boy by the management, a strike occurred towards the end of May at the works of Hoskins' Iron & Steel Co. Ltd., Lithgow, New South Wales. The trouble at the steel works affected the subsidiary industries, and soon some 1300 men were out of work. In response to a message from the industrial inspector (Mr. Nolan), the industrial commissioner (Mr. Piddington) intimated that he was prepared to preside at a conference of the parties. Meantime, he suggested that the men should go back to work, and that the boy be reinstated pending the decision of a conference.

Stealing and Receiving.

At the City Court, Melbourne, on May 26, Henry Edward Darvall was called upon to answer several charges of stealing, and arising out of these charges William John Adams was accused of receiving certain articles knowing them to have been stolen.

Between June, 1925, and June, 1926, Darvall is said to have stolen hinges and other hardware valued at about £2000, from F. K. Cox & Co. Pty. Ltd., and between September, 1926, and May, 1927, four saws and other articles valued at £71, the property of C. J. White & Sons Pty. Ltd. The accused had been employed by these respective firms. Adams admittedly bought from Darvall certain articles identified by Mr. T. W. White, managing director of C. J. White & Sons Pty. Ltd.

Regarding the alleged thefts from F. K. Cox & Co. Pty. Ltd., Darvall was remanded on bail to Flemington, while on the other count both men were committed for trial at the Supreme Court on June 15.

New Works in the Newcastle District.

An important extension of Australian industry will be established within six months near Newcastle, New South Wales. The Australian General Electric Co. Ltd. have bought sixteen acres of land between Hamilton and Broadmeadow station, and propose to erect a factory for making certain electrical lines. "We are planning to commence operations on a scale which will permit the employment of at least 100 men," said the managing director, Mr. Maughan. "We are satisfied that the time has come for the local manufacture of a number of items which hitherto we have imported. We are taking up the question seriously and energetically. We will manufacture one by one a number of lines, breaking into new lines gradually. There is really no limit to what we can do in this connection."

In Victoria, at North Melbourne, the company already have a factory for the making of traction motors. It has not yet been decided whether this will close down when operations at Hamilton are commenced.

The ground for the new factory is being levelled, and roads constructed. Steel requirements will be drawn from the works at Waratah of the Broken Hill Proprietary Co. Ltd.

New Factory for Melbourne.

The Parkinson Stove Co. Ltd., of Stechford, Birmingham, have manufactured gas meters in Australia for some years now. From their factories at Redfern, Sydney, and A'Beckett-street, Melbourne, large numbers of these appliances are supplied to the gas companies of Australia. It is now intended to erect a further plant in Melbourne for the production of the other lines for which the company are well-known throughout the world. These will include gas fires and stoves, bath heaters and other hot water appliances, as well as general castings and iron foundry products.

The general manager of the company, Mr. D. MacCallum Gibb, is now in Melbourne, and arrangements have been pushed rapidly on. The present case is one of many which effectually answer those who declare that British manufacturers lack enterprise. Mr. Gibb has already selected a factory site, comprising twenty-three acres in Sunbury-road, West Footscray, and plans have been prepared by the architects, Hudson & Wardrop, for a handsome brick building, with a frontage of 459 ft.

The work of construction will commence in June, and is expected to be completed by the end of 1927. Patterns and other necessary materials are now on the water, while all that can be supplied locally will be of Australian production. It is anticipated that early next year the factory will be ready to commence operations, and thereafter a full line of the company's products, made on the spot, will be available to Australian users.

Mr. Gibb will shortly return to England, but Mr. Fred. Hickenbottom, who will be works director, remains here in charge of operations. The representatives are James Balfour & Co., of Henty House, Melbourne.

German Plant for Victorian Industry.

In connection with the extension of their works at Yallourn, the State Electricity Commission of Victoria recently placed several orders for equipment with German firms.

The largest item was thirty over-burden dump trucks each of 20 cub. yd. capacity for which six tenders were received, one from England, two from America, and three from Germany. After allowing for the preference given under the Customs tariff to goods of British manufacture, the English price was 16.7 per cent. higher than the lowest tender, that of R. Berude, as agent for Orenstein & Koppel, Berlin, at £514 each, and spare parts to the value of £1,726/19/6. The total amount of this order will be £20,230/19/6 f.o.b. Rotterdam. Besides being the cheapest, the plant offered by the successful tenderer is considered by the Commission to be the most suitable for their requirements, while delivery is to be effected in less than half the time stipulated by the English tenderer. The trucks will work in conjunction with the over-burden dredger, which is already on order.

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An order has been placed with the agents for Siemens Schuckertwerke, Berlin, for the supply of one locomotive at £3931 to be assembled at Yallourn, while Fried. Krupp A.G. are to supply six 20-ton coal trucks for £2850 delivered at Yallourn. Locomotive and trucks alike are additional to and identical with those already in use. This was the deciding factor in placing these contracts, although in the first instance world-wide tenders were invited.

As an outcome of further experiments in burning high-moisture coal it has been decided to equip one of the boilers in the power-house with three grates of the mechanical-step type. The order for these has gone to another German firm, Seyboth & Co., at £1983 f.o.b. Germany.

Motor Driving Fatality.

At Palmerston North, New Zealand, on May 10, John Drummond, described as "an elderly retired ironmonger," appeared before the Supreme Court on a charge of having negligently driven a motor car, thereby causing the death of a boy named Albert George Vinton. The accused pleaded not guilty.

It was really a retrial, the jury at a previous session having failed to agree.

According to the evidence the accused was driving a car when the boy was overtaken. In the absence of a footpath the boy was walking on the road and the car struck him with such force that he was rendered unconscious and subsequently died at the Pahiatua Hospital.

Counsel for the defence said that, although it might have been possible to avert the tragedy, the fact that the accident occurred was not proof of negligence. The reason why accused did not see the boy before he did was because the boy had suddenly come out on to the road. Counsel regretted that there was not in existence a rule compelling pedestrians to keep to the right side when walking on roads, particularly at night. By this means he contended accidents could be avoided.

After an hour's retirement the jury returned a verdict of guilty, adding as a rider that the rule of the road for pedestrians should be to keep to the right.

His Honour said he entirely concurred with the verdict of the jury and with the rider. In this case there was no suggestion of drink or reckless joy-riding. But the accused had been over-confident of his own powers as a driver. He would be fined £100, with £50 costs towards the expenses of the two trials, and his license as a driver would be cancelled for four years.

The Implement Trade in New Zealand.

Makers of agricultural implements and machinery throughout New Zealand complain of the competition from abroad to which they find themselves subjected. During the year 1925 over half a million pounds' worth of competitive lines in this class was imported into the Dominion from the United States and Canada. Last year, so far as can be judged, the figures will be still higher, for the position of the local manufacturer is becoming more difficult as time passes.

In explanation of this state of things, New Zealand manufacturers maintain that the North American makers have a big initial advantage. Not only do they have a huge home market, but the larger concerns have their own mines, their own railways, and their own rolling mills. Costs of production are reduced to a minimum, and the efficiency secured is quite impossible in the smaller works of New Zealand. Local makers do not admit for one moment that the imported implements are better than theirs. On the contrary the local article is better suited, they maintain, to local conditions. But the outsider with plenty of capital at command is pushing his wares throughout the Dominion in a way they dare not attempt—giving half a dozen demonstrations where they can only afford to give one or two. Not only so but these outside competitors are prepared to sell machinery on a system of deferred payments which would spell ruin to people of smaller resources.

Relief is being sought through the Customs tariff. When in Christchurch recently the Tariff Commissioners gave representatives of the implement-making industry a sympathetic hearing, but what will be their report to Parliament and the outcome of it remain to be seen.

Petrol Pumps in City Streets.

In Victoria recently, the Ballarat City Council decided to grant licenses for the erection of street petrol pumps only when they are of Australian manufacture. This discrimination was opposed by certain members of the council, but the majority were favourable and the motion passed.

At a subsequent meeting of the council on May 23 a communication was received from the Sydney office of S. F. Bowser & Co. Inc., one of the earliest American makers of these appliances. The company maintained that the action of the council was illegal and forwarded in support of this view a copy of the judgment they obtained in a similar case by the Supreme Court of New South Wales. Among other things the letter said:—"It would be the last thing we would wish to do to have to obtain a writ of mandamus from the Victorian Supreme Court, but we are allowed to do business here in the Commonwealth of Australia and we certainly will not shrink from exercising our privileges."

The matter was referred for consideration to the Works Committee.

A larger question affecting the use of these pumps throughout Victoria was discussed at a conference of those interested on May 25. The Local Government Act makes municipal councils responsible for keeping the footpaths and roadways clear of all obstructions except telegraph and electric light poles and postal pillar-boxes. In view of the liability which this imposed certain municipalities have decided to prohibit the erection of petrol pumps within their jurisdiction and one has gone so far as to order garage owners to remove those already installed.

Recognising that the bulk method of handling motor spirit is the safest, the Municipal Association some time ago suggested amending legislation permitting the use of kerb pumps without saddling the municipalities with liability for any accident caused thereby. The views of the deputy chief officer of the Metropolitan Fire Brigade, which ran as follows, was read to the meeting:—"The method of supplying petrol in bulk from underground tanks is one that appeals to the fire brigade very strongly. We are quite satisfied with the system of storage, and have had a pump installed at the fire station for several years. We would prefer the pumps to be placed on the footpaths rather than inside a building." Several speakers emphasised the danger of handling volatile spirit in tins and drums, and it was stated that insurance companies quote preferential rates when petrol is stored in underground tanks.

The decision of the meeting was that early legislation should be urged upon the Minister for Public Works and that meantime those municipal councils which had taken protective action should be asked to stay their hands.

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Australasian Metal Markets

All prices are quoted for approved brands, duty and over charges included.
For English prices, see The Month's Cablegrams on page 192

Sydney, May 30, 1927.

There has been nothing noteworthy about trade during the month of May, and in certain directions a general dulness has been experienced. Jute has had some attention, but there are no reports of any conspicuous happenings. Although a general reduction of £1 per ton was made in galvanised corrugated sheets, there were quite a number of parcels of English sheets sold to arrive from stocks ex ships afloat, and in some directions too indents were placed for forward shipments. Metal products are quoted easier in price this month, trade not being particularly brisk. Welsh tinplates have had attention both on spot in small quantities, and also for indent. Manufacturers are receiving now some of the stocks which were held up during the British coal miners' strike. This, in some cases makes the stocks rather more than are required, but the canister workers appear to be busy. There is not a strong market overseas in either turpentine or resin, and indent quotations are much lower than importers had expected. The local market holds sufficient stocks for any immediate likely demand, and prices are very often subject to reduction. It is stated in reliable quarters that both products may show improvement about July/August next. Shellac was fairly well distributed and stocks were not heavy. Calcutta quotations showed a sharp advance, and this position has been maintained. English linseed oil advanced in price for indent late in the month, and immediately a very keen activity was noticeable on spot, which resulted in interhouse trading over a fair parcel of both raw and boiled oils. Trade in suburban houses is maintained over a satisfactory number of products. Cash trading is well up to the figures of the corresponding month of last year.

Christchurch, May 16, 1927.

Hardware business in Christchurch is rather dull. There has been, however, very little rain, and the prospects of feed for stock are not good according to the farmers, who are not having a very rosy time. The total rainfall from January 1 to date is only 3.7 inches instead of the average of 9 inches. In a recent speech, the Prime Minister of New Zealand (Mr. J. G. Coates) admitted that the country was passing through a difficult year economically. The unsatisfactory prices received for our primary products were largely a result of the low purchasing power of the British public, our principal customers. In 1926 the value of our exports was £9,000,000 less than in 1925, almost wholly due to the lower prices received. Fortunately, there are already signs of improvement taking place, the March figures showing a most hopeful rise. The farmer in Canterbury has been spending practically nothing in Christchurch; in fact, buying only the barest necessities. A recent report states that the imports of motor cars have dropped 50 per cent. and that the local market has reached saturation point. Christchurch implement makers are feeling the competition of United States and Canadian manufacturers who, by their greater efficiency and larger output, can land their machinery at much lower prices than the local maker can approach with any chance of living. In Canterbury though the recent crops have been splendid, the increase in of wheat have been stabilised, and farmers are receiving payable prices, although not as good as was anticipated. Work on the Municipal Concert Hall is proceeding well, and workmen are bolting together the steel plates which will make up the huge compound girder to support the dress circle. The City Council have let a contract for the supply of pipes for the extension of the water mains to the Spiral and Lock Bar Steel Pipe Co. of New Zealand Ltd., giving this local concern a preference over a British firm who quoted a lower figure. The Drainage Board expect that three additional pumping stations will shortly be completed, and the machinery installed. The peculiar position is that the loan for sufficient extra water to flush out the new sewer lines was not carried at a recent poll, and the new City Council is in a quandary. At the municipal elections a Labour mayor (Rev. J. K. Archer) was re-elected with a big Labour majority of Councillors, who are reported to be devising some way out

NEW ZEALAND PRICES.

	Duty.	Auckland, May 26	C'church May 16	Dunedin, May 21	Wellington May 26
IRON—					
Bar—		£	£	£	£
English ..	Free	21	24/	23/	24
Shoeing ...	,,	23	25/	21/	25
Steel ...	,,	15/10 to 21/-	20	23/	18/ to 25/
Pig	,,	8	10/6	10/6	9/- to 10/-
Plate ...	,,	21 10/	25/	25/	24/6
Hoop ...	,,	24/, 35/	33/	32/	33
Sheet, Blk.	,,				
to 20-g. ...		23 10/, 24 10/	27/6	28/	24/6 to 26/6
22 & 24 g.		25 10/	29/6	30/	26/6
Galv. Cor.—	2/-				
First ...		31	33 Builders	33/	32 10/
Second ...	,,	30	30/6 ,,	32/	31 10/
Local ...	—	31	...	...	...
Do., Plain	Free	...	...	...	...
24 & 26 g.		32/, 33/	33/, 35/	40, 48, 44	31 10/
Pipe—Galv.	Free	45%	42½% off	42½	40% off
,, Black	,,	50%	47½% off	50% off	50% off
Wire—	,,				
Galvd. ...	,,	16, 18	17/6	16/6	17/6 to 18/6
Black ...		16/6	16/6	16/6	
Barbed ...	,,	21, 23 10/	22/6 to 23/6	21/	25 6 to 26/6
Nails	2/4/-c	20/6	22/6	21 10/ to 23	23
,, N Z.		20/6	...	...	23
Lead—Pig	Free	35/3	45/	48/	40/
,, Sheet	,,	44/	52/6	60/	60/
,, Shot	10/-	75/	80/	80/	75/
Tin—Ingot	Free	3/3	3/4	3/2	3/7
,, Plates	,,	32/6, 48/6	50/ I.X.	40/	37/6
Zinc—Sheet	,,	7½d. lb.	9d. lb.	8½d.	8½d
Quicksilver	—	...	6/6 lb	...	...
Cement—					
Imported	1/-cwt.	...	22/6 cask	...	...
Local bag	—	5/8	6/10	6/	5/11
Slates ,,	Free	...	...	...	...
P. of Paris ...	,,	27/6	32/6	26/6	27/6
White Lead	10%a.v.				
Best ...	—	60/	59/6 to 62/6	65/	69/ to 70/
Second ...	—	59/	...	...	68
Blst. Powder	Free	1/8	1/9	1/7	1/8
Rope— ...	20%				
Manila, Star	—	111/	111/	116/	111/
,, O. ...	—	107/	107/	112/	107/
Flax, N.Z. ...	—	81/, 88/	88/	88/	88/
Co nsacks ...	Free				
44-in. ...	,, —	...	...	13/3½	14/6
46-in. ...	—	...	14/9	13/	14/9
48-in. ...	—	15/	15/	13/6½	15/
Woolpacks ...					
Full ...	Free	5/3	5/3	4/4	5/3
Oils—					
Lins'd, raw	6d.	5/3	N.Z.4/8 Eng4/11	5/3	5/9
Castor ...	Free	5/-	6/	5/6	5/6
Colza ...	,,	7/9	8/	8/-	7/4
Kerosene	,,	14/9	14/9	14/9	14/3
Turpentine	,,	7/6	7/6	7/6	7/6 to 8/

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of the difficulty. Speaking generally, the building trade is quiet, although several big contracts are being carried out. Orb brand G.C. iron has been reduced to £33 basis of 8 ft. to builders, wire nails are being reduced by £2 ton basis to builders buying 5 cwt. lots and over in one delivery, and galvanised pipe is being sold at list less 42½ with an extra 5 per cent. allowance for orders of 3000 ft. and upwards.

Dunedin, May 21, 1927.

Business for the past month has been on the quiet side, although traders generally are but slightly affected. The approach of winter invariably affects business in that direction. Several important city contracts are proceeding apace, and making satisfactory headway. The annual mid-winter show of the Otago Agricultural and Pastoral Society opens on May 31, and will be continued till June 3. Special attractions have been provided, and it is anticipated that liberal public support will be accorded to this popular function. Our agriculturists and pastoralists regularly patronize the show and make it an occasion for refurnishing their exhausted supplies to the advantage of business houses in the city. As will be seen from the tabulated figures, but slight variations in the price list have to be recorded. English bar iron is now lower at 23/- and shoeing at 22/-. Galvanised corrugated iron has also declined to 33/- for first and 32/- for second. Galvanised wire is 16/6, black 15/6, and barbed 21/-, which are about previous rates. Best white lead is quoted at 65/-, linseed oil at 5/3, castor at 5/6, and turpentine at 7/6.

Wellington, May 26, 1927.

The hardware trade is now in a good position as regards stocks, these having been well replenished by recent arrivals. Merchants are now holding comfortable stocks of all English iron goods, and prices of some lines are a little easier. Business is not very brisk at present, and with winter started a somewhat quiet time is expected for a while. Building is still very active here, including some big works. Galvanised iron is in adequate supply, and fairly good inquiry, with prices £1 lower. Wire nails are plentiful and unchanged. Fencing wire is quiet at present, with normal stocks held. Bar, plate, and sheet iron and steel are in adequate supply and very fair request, with prices unaltered. English reinforcing wires are available again, and the price is 10/- lower at £18. Lead is unchanged, and remains quiet, with fair stocks. Tin remains high with a moderate amount on hand. Other metals show no change. Plaster wallboards are in better supply and selling well at 25/- to 27/6. Cement is in ample supply at last rates. White lead and red lead are in normal supply and unchanged, but with a weaker tone. Linseed oil remains steady with plenty available. Turpentine is a shade easier. Other lines remain fairly steady, but any change is likely to be in the direction of easier rates.

Brisbane, May 30, 1927.

Reports for the month of May show that there has been a marked increase in business in the hardware trade generally, and much satisfaction is expressed at the improvement in country demands. In fact there is an altogether much more optimistic tone prevailing throughout commercial circles. Heavy hardware has been moving nicely, with a stronger inquiry from the sugar and dairying areas. Full stocks are held, and prices are unchanged. Bulk lines have been quiet, with stocks plentiful and prices steady. Carbide, although in full supply, has been selling freely at unaltered prices. Both colonial and imported are called for in country districts. Tools of all kinds have been selling well, but stocks are rather in excess of requirements, and keen cutting of prices may be expected in the near future. Orders on account of the building trade have been brisk, and good business has been effected in most branches. Heavy stocks are held by some importing houses, who have welcomed the opportunity to reduce certain lines. No particular alteration in prices are noted. Tinned and iron hollow-ware, together with enamelled and aluminium ware have sold freely, but notwithstanding this, stocks are still too large and merchants would be glad of the opportunity to still further reduce. Continental goods are arriving freely and competition is keen. The painting trade is exceptionally busy. Prices are steady, although imported linseed oil is inclined to firm. White lead is selling well, and there is a strong demand from the country with prices unaltered. Fencing wires have been moving freely, and the demand for barbed wire and wire netting (dog wire) has been fairly good this month. Prices are unaltered, and stocks remarkably good. General ironmongery and shelf goods are not up to sales for the corresponding month last year. Stocks are heavy. No particular alteration in prices are mentioned since last report. Woolpacks are in full supply. The demands to hand reflect the ravages of the severe drought experienced towards the latter end of last year. A limited business is reported for corn sacks, and stocks are plentiful. Sanitary accessories and materials are plentiful, and the demand is steady and well maintained. There is no alteration in prices to report. Galvanised iron has been selling freely in keeping with the building trade, and prices are inclined to firm.

Adelaide, June 1, 1927.

Hardware trade at this centre has been on the quiet side during the past month, caused, no doubt, by the absence of rain. Now that the season has broken, however, with light to moderate rains throughout the agricultural country, trade should brighten up a bit, although the far northern pastoral lands still remain very dry. The influence of the comparatively small turnover during the past couple of months has been reflected in the buying activities of merchants, considerable falling off having been noticed in the volume of indent business placed during May. Fair trade has been maintained in mild steel bars at prices listed, but fencing steels have been moving slowly. Fencing wires and netting sales have also not come up to expectations. Good stocks in these lines are held by all houses. Galvanised corrugated iron has been selling well at lower prices than for some time, good parcels to hand during the month having been cleared. Ingot tin quotations for the month opened at £295, and closed yesterday at £293/10/- for ton lots. Merchants' prices are still in the vicinity of 2/10 lb. Since the last reduction of £2 by manufacturers of lead products at the end of last month, prices have remained unchanged, and business in these lines has been good. Sales of black and galvanised tube have been slow. Cement clearances have been well maintained. Activities in other lines listed do not call for special comment.

Melbourne, June 2, 1927.

It has almost become a habit in Melbourne to complain about the slackness of the hardware trade. Certainly, the past few months have not been encouraging. But one finds upon discreet inquiry about one class of goods and another that business is still being done. There is genuine cause for complaint in the poor demand for heavy metals and fencing materials, which loom so largely in the turnover. Ample stocks are available, with few buyers for any quantity, but that is not unusual at this period of the year. Shelf goods are selling quite well in many quarters at least. Lampware and heating appliances are in good request, as well as other domestic lines. As a matter of fact, the quantity of aluminium and enamelled utensils handled is astonishing when realised. Steel and iron

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in sheets and bars found some demand during May, but it is pointed out that most of this was for other States than Victoria. A few examples of sales of mild steel are: 3 tons of 8 x ½ in. at £17; 5 tons, 5 x ½ in. at £15/10/-; 10 ton lots of the same 4 x ⅜ and 4 x ¼ at a similar price; 5 tons of ⅝ in. square fetched £16. Another parcel of large rounds, assorted from 4¾ to 7 in. was also cleared at a figure not disclosed. Steel angles 1½ x 1½ x ⅛ found a buyer at £17/10/-, while 10 tons of steel joists in various sizes brought £18 less discount. A line of 5 tons mild steel panhead rivets was also noted for £23/10/-. Fencing materials showed no signs of life. A few miles of netting were asked for here and there, 36 x 1⅛ x 18 selling at £27/5/-; 42 x 1½ x18 at £34, and a 10 mile lot of 42 x 1½ x 17 at £42. Black fencing wire, No. 8, moved occasionally at £14/10/-; No. 8 galvanised at £16/12/6; and No. 9 galvanised at £16/15/-. Iron pipes shared in the prevailing slackness. One or two sales were recorded, 5000 ft. of black tubes, ½ and ¾ at 60 per cent. off, and similar quantities of 1¼ and 1½ in. at 55 per cent. off. Building materials generally were in but moderate demand. Galvanised iron was quiet; some few sales were reported, the ruling price for 26 gauge corrugated in parcels of 10 tons being on a net basis of £25/10/-. Government orders were placed with several Australian works for cement, but the inquiry for private purposes was poor. Prices are unchanged. The lack of demand for lead overseas was no doubt responsible for the drop in prices of locally manufactured materials of this metal. The oil and paint market is dull throughout the trade. No great improvement is anticipated for a month or so. Some little business was done with rabbit traps. The "Victor" brand traps sold in lots of 25 dozen at 22/6 less discount, and Sidebotham's traps at 19/6. A good demand for cornsacks and bran bags is advised, and the market is inclined to harden.

The Month's Cablegrams

Copper, Tin, and Silver. — The following table shows the quotations at the undermentioned dates, compared with those of the corresponding periods last year:—

Date.	Copper. Electrolytic. Per Ton.		Tin. Standard. Per Ton.		Silver. Standard. Per Ounce.	
	1926	1927.	1926.	1927.	1926.	1927
	£	£	£ s. d.	£ s. d.	d.	d.
April 29..	64½-65½	61-61½	274 7 6	294 2 6	30	25⅝
May 4..	64½-64⅝	61⅛-61½	268 7 6	296 7 6	31	25⅝
,, 11..	64½-64⅝	61½-62	271 15 0	297 7 6	30	25⅝
,, 17..	64½-65½	61-61⅛	273 12 6	290 16 3	30¼	25⅝
,, 24..	64½-64⅝	60⅝-61	266 17 6	295 17 6	30⅛	26⅛
,, 31..	64-64½	60-60½	268 11 3	291 11 3	30⅛	26⅛
June 2..	64-64⅛	60-60¼	262 17 6	292 16 3	30⅛	26¼

The stocks of tin in the United Kingdom at the end of April were 12,816 tons; the deliveries for the month 2100 tons, the quantity on spot 658 tons, and the quantity afloat 1750 tons.

Lead.—In the London market soft foreign lead on spot has been quoted as follows: May 4, £25/13/9; May 11, £25/7/6; May 17, £24/17/6; May 24, £24/12/6; May 31, £24/6/3; June 2, £25/3/9.

For the month of April the imports of lead into the United Kingdom were 22,775 tons, including 6208 tons from Australia. The exports were 1179 tons.

Spelter.—The spot quotations for spelter, as cabled from London, have been as follows: May 4, £29/3/9; May 11, £29/6/3; May 17, £28/17/6; May 24, £29; May 31, £28/7/6; June 2, £28/17/6.

Tallow.—Following are the statistics for May, and particulars of the latest auction sales:—

May	Casks.	Date.	Casks Offered	Casks Sold.	Mutton, Med., per cwt.	Beef Med. per. cwt.
Imports		May 4	1062	457	35/-	35/-
Delivers		,, 11	1088	423	35/-	35/-
Stock		,, 18	1403	530	35/-	35/-
		,, 25	1670	235	34/6	34/6
		June 1	883	382	34/6	34/6

He Cheated Himself.

A striking story is told of a rich man who wanted to help a poor carpenter and his family. He hired the carpenter to build a house on a hillside and then went away on a long journey. The carpenter said to himself, "My boss is away and I can use shoddy materials and neglect the supporting work that doesn't show. The house will be weak, but nobody will know it." So he built a ramshackle house.

When the rich man came back, the carpenter said, "Here is your house." "Thank you!" said the rich man. "Here is the deed and the key. I'm giving it to you."

And the carpenter grieved that he had robbed himself of a good house.

We reap what we sow. We have to live in the house of life we build. If we do shoddy work, if we "soldier" on the boss, we pinch ourselves, shrivel up and lose our ability to discern between right and wrong. We have to live in such a house without character. We have to live with ourselves!

It is a tremendous fact that each one of us is building to-day the house we must live in to-morrow. We can build a palace or a hovel, a mansion or a jail or a pigpen, but we must live in it.—American Exchange.

Smiles and Sales.

If I come into your store, will somebody say, "How do you do?" Will I feel you are glad to see me? If you are busy, will you make me feel you know I'm there and will attend to me as soon as possible?

Will I get a smile as I come in, and a smile with a "Much obliged!" as I go out?

Does your window smile at me and say, "Come in, glad to see you?" Do your counters and shelves smile and say, "Howdy, friend; here we are, all clean fresh goods; come buy us"?

Is yours a place I'm glad to get into and sorry to leave?

If you put a smile into your window, your store, your clerks and your goods, I'll smile too, and feel like buying.

But if I get the cold shoulder when I look in on you, I'll back out quickly, and drop in on Jimmie in the next block.

He grins when he sees me!

I'm just a human being, you know. I'm the Average Customer.—American Exchange.

Business for Sale.

On page 12 of advertisements, a suburban business—crockery, household ironmongery and fancy goods—is offered for sale by tender. The premises may also be purchased. Stock worth about £3000.

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Australian Market Prices

N.B.—The prices given in these columns are mostly those at which wholesale merchants are prepared to supply ordinary parcels to storekeepers, or other retail dealers. In a few cases we give the quotations of manufacturers or their agents. Preference as well as general duties are shown in the "Duty" column. The first rate is that on goods from the United Kingdom, and the second is the general rate on goods from foreign countries. "F" represents free, and "F 10 %" free from the United Kingdom and 10 % from other countries.

	Duty	Sydney May 30	Melbourne June 2	Adelaide June 1	Brisbane May 30
Pig Iron	2/, 40/	£	£	£	£
British		...	7 5/	...	...
Swedish		...	...	...	...
Lithgow		7 10/	7 5/	...	...
Newcastle		7 10/	7 5/	8	...
Bar and Rod	44/, 120/	22 basis	English 21	23/	22/10 basis
Australian		...	18/6	...	...
Mild Steel	44/, 120/				
Bar		19 10/basis	19/ basis	19	18
Angles		19 10/	18	19 10	19
Tees		21	18	20 10	20
Hoops	F., 10%				
Black		20 basis	19 basis	19/6	21/ basis
Galv.		31/6 basis	35	38/6	31 10/
Galv. Corr. 24g.	20/, 60/	30/]	29 10/	28 15/	
Orb 26 g		28	31	30 15/	30 5/
"		29 10/	31	...	31 10/
Adams Mars		...	...	...	...
Phoenix Cr.		29 15/	30	28 15/	32
Galv. Plain 24g.	20/, 60/	30/]			
Queen's Hd.		30/	31	31 15/	33
Phoenix Cr.		31 5/	33	...	...
Fleur-de-lis		29 10/	...	31 5	33
Other		...	31 10/	...	43/
Sheet	F., 125/				
Black		27 basis	25 basis	26	26
Baldwins		B26, G34 5/	26 10/	...	19
Plate	F., 120/	basis			
Steel		18 basis	15 basis	15	15 10/
Girder		19/6	21	19	20/-
Fencing Wire	F., 120/				
American 8		18 5/	18 5/	..	..
" 10		19 5/	19 5/	..	...
Austra'n 8 Bl.		15 12/6	15	15 10/	16/
" 10 "		16 12/6	15 10/	16	17/
Galv. 8		17 17/6	14 10/	18 10/	18 10/
" 10		18 17/6	15 10/	19 10/	19 10/
" 12		20 2/6	18 10/	20 15/	20
Barbed Wire,	68/, 180/				
Amern. 12-g.		24	...	...	25 10/
" 14-g.		25 10/	...	...	26 10/
Austn. 12-g.		24 10/	23	24	25 10/
" 13-g.			24	25	26
" 14-g.		26	25	26 10/	26 10/
Wire Netting	F., 200/				
36 x 1½ x 17	per. ton		36 15/	36/	
36 x 1½ x 18			29	34/	New List
42 x 1½ x 17		15%	49 10/	...	
42 x 1½ x 17		to	41 10/	...	
42 x 1½ x 18		20%	34	41/	10 to 15%
36 x 1½ x 17		off	35	...	
36 x 1½ x 18		list	28	...	Off List
36 x 2 x 18			22 10/	31/6	
36 x 2 x 19			20	25/6	
Nails—					
Horshoe	12/, 15/	2½% on list	to 1/lb.	1/ less 10%	List Price
" Austn.		...	List	...	plus 5%
Wire	5/6, 8/				
" Austn.	or25%,35%	28/6 basis	20/ to 22/	24/6 to 35/	30/- basis
Roofing—	5/6, 8/				
Evenden		74 6 cwt.	65/cwt., 9/6	10/	11/
Lead-head		...	...	...	44/
Block Tin	Free	292 10/	301	294 10/	3/
Tin Plates, 28 x 20—	F., 10%				
I.C. Coke	28 x 20	112's 67/6	50/	112's 52/6	27/
I.X. Coke	56s	47/6	70/	...	42/
Pig Lead	Free				
Austn.		27 15/	42	35/	37/10
Sheet Lead	10%, 20%	48/	50	46 10/	55/
Dampcourse		4½" 7/-			
2 lb.		4½" 10/6	48		
3 lb.		10/6 Roll	47		
Lead Pipe—	10%, 20%				
½ to 2in. coils		48/	50	51	64/
Lengths to 5'		50/	52	55 5/	65/
Compo. ¾" up		53/	51	55	78/
Copper—					
Ingots		...	70	97/6	10d.
Sheet	25%, 40%	1/6	1/7	1/8	1/8
Brass					
Sheet	25%, 40%	1/3	1/2 to 1/6	1/6	1/6

	Duty	Sydney May 30	Melbourne June 2	Adelaide June 1	Brisbane May 30
Zinc—		£	£	£	£
Sheet 9 to 18g (7 x 3 & 8 x 3)	25,% 40%	67 10/	62 10/ to 65	69/	65/ cwt.
Perforated	35%, 45%	5/	7	...	5/6
Spelter	10%, 20%	32	...	54/	...
" Elec....		301/10/to 37	41 to 42	...	40/
" Brazing	25%, 40%	1/9	1/5	...	1/9
Bolts & Nuts—		⅜" ½"	⅜ ½		
Cuphead 3"		75/, 59/	63/ 47/ 41/		
" 4"	35%, 50%	76/, 57/	61/ 46/ 89/	...	26/3 to 73/
" 5"		70/, 54/	56/ 43/ 37/		
" 6"		65/, 49/	52/ 39/ 35/		
" 6½" to 9"		61/, 47/	49/ 38/ 34/		
" 9½" to 12"		59/, 45/	47/ 36/ 32/		
Tanks, 400-gal.	Free	6 5/	4 10/		5
" 200-gal.		3 5/	2 5/		3
Tubing—	F., 10%				
Black, up to 3"		55 off list	55% off	58½off	List 45% off
" 3½ & up	27½		60% off	35 off	.. 5% on
Galv. up to 3"		50 "	45% off	46½off	.. 10% off
" 3½ & up	27½	...	tst. List	20 off	Less 10% off
Steam, up to 3"		40 "	37½% off	37½off	.. 5% on
" 3½ & up	27½	...	5% off	20 off	.. 25% off
Wr'ght boil.		...	10% on	...	.. 15% on
Explosives—	F., 5%				5/
Hall's C.C.	10%	1/-	10½d.	1/-	1/1
Curtis's		10½d	10½d.	11½	1/
Chilworth's		10½d.	10½d.	...	1/1
Sporting	15%, 25%	3/6, 4/6	2/9 to 4/6	3/6 to 4/11	3/6 to 5/
Diam. S'less		10/	8/ to 8/6	8/3 to 8/6	5/
Amberite		8/6	7/ to 7/6	6/9 to 7/6	75/
Blast'g Gel.	F. 5%	74/6	74/6	74/6	79/6
Gel. Dyna.		66/	66/	66/	71/6
Gelignite		56/ to 59/6	56/ to 59/3	54/6 to 58/6	62/ to 65/
Dynamite		51/ to 57	51/ to 57/	46/6 to 51/6	...
Detonators	15%, 25%	55/	55 to 60/	60/ to 85/	58/ to 102/
Shot—Chilled	5/, 6/	68/	61	75/	90/
Australian		67/	56	...	...
Cyanide Pot.	Free	1/4	1/6	...	1/6
Quicksilver	Free	7/6	5/6	5/8	8/-
Sash Weights	35%, 45%	16/	22/6	16/6	18/6
Sheep Shears	F., 10%	62/6	62/6	60/	60
Cement—Impt'd	20%, 30%	25/ cask	21/6	22/6	21/ cask
Aust. (bags)		...	18/	7/4	6/6 bag
Plaster, Imp.	1/6, 2/c	37/6 K.W.	35/	47/6	50/ cask
" Aust.		Pixie 35/-	8/	9/3	18/ bag
Slates (20 x 10)	30%, 40%				
White Lead—	8/, 10/, or				
Imported	25%, 30%	70/	70/	71/6	72/
Australian		62/6	65/	63/	66/
Zinc White	20%, 30%	...	70 to 100	...	72/, to 86/
Oils—					Colonial 56/
Linseed (raw)	9d., 1/		Drs.,		
Imported		R5/6	5/10	Drs., 5/9	5/3
Australian		C4/9 D 4/11	C., 5/-	Drs., 5/6	4/7
Colza	6d., 8d.				
Burning		...	6/-	...	
Castor—	9d., 1/				
½-cases		C 6/3	6/3	7/	7/9
China	2s., 2/6	...	8/	...	...
Cotton seed	6d., 8d.	..	8/6 to 10/	...	10/
Kero.—C.O.R.	Free	..	13/	...	...
Laurel		13/	13/6 to 14/6	13/	13/6
Light of Age		13/	13/6 to 14/6	13/6	13/6
Pennant		13/	13/6 to 14/6	13/	13/6
Turpentine	F.,	6/3	6/3	6/-	52/- c/s
Substitutes	½d., 1d.	3/	18/ per case	...	18/- c/s
Shellac		3/	2/9	2/5	2/6
Whiting—	6d., 9d.				
English		9/	7/6	9 10/	£12 ton lots
Colonial		4/9	4/6	5/	...
Resin, G grade	Free	38/6	35	36/	37/6
Carbide—	80/, 150/				
"I X L"		32/6	25/6	29 5/	29, 7/6
Scandinavian		34/-	27/6	33 10/	33
Canadian			...	...	...
Japanese		...	...	...	...
Bluestone—	100/, 200/	...			
Macclesfield		37/6	37/	...	40/
Australian		36(1 cwt c/s)	...	37/6	...
Japanese		...	...		
Stock. Tar, 42 g.	25%, 35%		1/5	...	
Woolpacks—	Free	...		...	...
42 x 11½		...	6/	5/9	...
54 x 11½		4/6	4/6	4/9	4/10
Cornsacks—	Free				
2¾ lbs. (Oats)		...		...	...
2¼ lbs		10/6	10/6	11/6	13/6
Branbags	Free	8/6	8/6	8/6	9/ to 10/

Small buyers requiring credit for broken parcels must expect to pay more than prices here quoted.

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Business Register

If you correct them monthly by these pages you will have lists more up-to-date than any Directory. Some leading firms do this.

New South Wales

Concord-West Hardware and Produce Stores, Concord-road, Concord West, have been taken over by Roy Barker.

A. W. Johnson & Co., brass founders and finishers and general engineers, 5 Nicholson-street, Woolloomooloo, have been registered under the Firms' Act. Proprietor: Archibald W. Johnson.

Company News.

Gerard & Co. Ltd. have been registered with a capital of £25,000 in £1 shares. Objects: To acquire the business of importers, merchants and general storekeepers now carried on by Gerard & Co., Grafton. Subscribers: Abraham Lipman, Phoebe R. Lipman, Joseph P. Lipman, Carrington Lewis, Cecil S. Lipman, Arthur A. Lipman, and Len. J. Abrahams. Reg. Office: Grafton.

Slade, Allan & Co. Ltd. have been registered with a capital of £25,000 in £1 shares. Objects: To acquire the business of manufacturers' representatives, agents, indentors and importers, now carried on under the style of Slade, Allan & Co., at Broughton House, 181 Clarence-street, Sydney. Subscribers: William H. Slade, Douglas G. Allan, Leslie C. Lumley, George R. Smith, Raymond Jones, Norman W. Barnes and John Adam. Reg. Office: Sydney.

Overell & Sampson Ltd. have been registered with a capital of £10,000 in £1 shares. Objects: To acquire by agreement the business carried on in New South Wales by Overell & Sampson Pty. Ltd., a company incorporated in Victoria, and also to acquire all that department of the business carried on under the style of Peach Bros., etc. Subscribers: J. B. Overell, E. M. A. Overell, Alan J. Overell, M. F. Cato, C. A. Thomlinson, B. Norrie and Frank Peach. Reg. Office: Sydney.

Holdsworth, Macpherson & Co. Ltd. have been registered with a capital of £300,000 in £1 shares. Objects: To acquire the business now carried on at 252 George-street, Sydney, under the style of Holdsworth, Macpherson & Co. Subscribers: Vero Read, John C. Davis, Frederick J. Smith (by his attorney, Wilfrid E. Johnson), Wilfrid E. Johnson, Robert Hill, George C. Coburn and Charles W. Rundle. Reg. Office: 252 George-street. Sydney. [A previous intimation gave F. A. Hawley, J. C. Davis and V. Read as the first directors.—Ed.].

New Zealand

Company News.

D. & J. Miller Ltd. have been registered with a capital of £5000 in £1 shares. Objects: Engine manufacturers, brass and iron founders, plumbers and incidental. Subscribers: M. Bowles and M. M. Bowles. Office: Auckland.

MacDuff's (Christchurch) Ltd. have been registered with a capital of £4500 in £1 shares. Objects: To carry on the business of buyers, sellers of, and dealers in crockery, hardware, household requisites and fancy goods of all kinds. Subscribers: N. B. Boyd, L. O. Boyd and W. R. Boyd. Office: Cashel-street, Christchurch.

Queensland

The Wide Bay Sports Depot Ltd. have been registered under the Companies Act with a capital of £2000 in £1 shares. Objects: To establish at Maryborough and elsewhere a sports depot or depots, and to carry on business of dealers in all kinds of articles used in sports and games, etc. Subscribers: Louis E. White, George S. Warry, Sarah A. Warry, Vera M. Warry, Richard S. Warry, Edwin White and Fanny L. White. Reg. Office: Kent-street, Maryborough.

South Australia

Enterprise Wire Mattress Manufactory, wire mattress manufacturers, Mile End, announce that James Alfred Holt has become a member of the firm.

R. B. Knowling & Co., storekeepers, Mundalla, announce that William McGrice has retired, and that Thomas Edwin Jordan has become a member of the firm.

Auto Fittings, brass founders, finishers and electroplaters, South-road, Glandore, announce that John Faulkner Dixon has retired, and that Edward Bown and Francis Gray Fuss have become members of the firm.

Tasmania

Dupont Pty. Ltd. have been registered with a capital of £2000 in £1 shares. Reg. Office: Hobart.

The Safety Boddy Light Co. Ltd. have been registered with a capital of £10,000 in £1 shares. Reg. office: Hobart.

Victoria

Mr. Young has purchased the business of William Wilkinson, ironmonger, Oakleigh.

A. V. McBean has purchased the business of Norman McLennan, ironmonger, Kyneton.

Firms Registered.

Barke Bros., general storekeepers, High-street, Yea; proprietors: Leslie Woolrich Barke.

The Pioneer Hardware & Timber Co., Devonshire-road, Sunshine; proprietor: James Thomas Mooney.

Company News.

W. R. Volum & Co. Pty. Ltd., manufacturers' representatives, have removed from Collins-street to 294 Little Collins-street, Melbourne.

Shave Plows Pty. Ltd., manufacturers of and dealers in plows, etc., have been registered with a capital of £25,000 in £1 shares. Subscribers: William Tennyson Forster and Walter Nelson.

Dannock & McCoughtry Pty. Ltd., plumbers, hardware merchants, electricians, etc., have been registered with a capital of £4000 in £1 shares. Subscribers: Edgar Isaiah Dannock and William Mountross Dowling McCoughtry. Reg. office: 249 Station-street, Box Hill.

Henry F. McCrea Pty. Ltd. have been registered with a capital of £5000 in £1 shares. Objects: To acquire from Henry Falding McCrea the business carried on by him as agent and supplier of crockery, glassware, brassware, and china, etc. Subscribers: Henry Falding McCrea and Mabel McCrea.

M. B. John Pty. Ltd. have been registered with a capital of £30,000 in £1 shares. Objects: To acquire as a going concern the business of brassfounder carried on by Morgan William Bevan John. Subscribers: Morgan William Bevan John, Morgan Bevan John, and James Taylor John. Mary Gemmel John is also a director. Reg. office: Lydiard-street, Ballarat.

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Western Australia

The Oxy. Weld Co., enginers, brassfinishers and sheet metal workers, 402 Murray-street, Perth, announce that Andrew Getty (deceased) and Agnes Getty have retired, and that Moore Getty has become a member of the firm.

Firms Registered.

Economic Store, general storekeepers, Kalamunda; proprietress: Lucy Booth.

C. H. West & Son, general storekeepers, Margaret River. Proprietors: Charles Horace West and Charles Samuel West.

Bullock's Agency Co., general agents, hardware and fancy goods dealers, Kulin; proprietors: John Henry Bullock and Robert Thomas Gray.

The Dowerin Trading Co., general storekeepers, Cowcowing-road, Dowerin; proprietors: Edward Henry Wright and Millicent Alithea Wright.

The C. & G. Stores, grocers, hardware merchants and drapers, York-road, Midland Junction; proprietors: Douglas Horley Campbell and Duncan Grant.

Company News.

James Eastwood Ltd. have gone into liquidation. W. S. Bishop and B. Copley, of 379 Murray-street, Perth, are the liquidators.

Harris, Scarfe & Sandover Ltd., Perth, have paid a dividend on ordinary shares at 6 per cent. per annum for the half year ended December 31, 1926.

R. W. Middlemas & Co., hardware merchants, Perth, and Cargeeg Bros., crockery merchants, Perth, have amalgamated their businesses, and will later turn the business into a company under the style of R. W. Middlemas & Co. Ltd.

Travellers

In Victoria.

Mr. J. Melville Horsburgh, of G. Horsburgh & Co. Ltd., hardware merchants, Maryborough, Qld., returned from a holiday visit to Sydney and Melbourne on May 21, during which he also transacted some business.

To and From Europe.

Mr. J. W. Murdoch, managing director of Cochrane & Scott Pty. Ltd., left Melbourne by the R.M.S. "Moldavia" on May 24 for a world tour. Before leaving his co-directors presented him with a gold watch and chain in token of their esteem and good wishes.

Mr. L. O. Saunders left on June 1 by the R.M.S. "Naldera" on a buying mission for Hardys Ltd., timber and hardware merchants and manufacturers, Wagga Wagga, New South Wales. He will visit England and the Continent, and return via America.

Mr. H. E. Taylor, manager in New Zealand of the British General Electric Co. Ltd., left early in May on a business trip to England. Before leaving he was entertained to luncheon by the branch managers from the four large centres and presented with a smoker's outfit.

Mr. H. B. Ive who has been associated with Noyes Bros. (Sydney) Ltd., 115 Clarence-street, Sydney, for more than twenty years, has been granted six months leave of absence. His many friends bade him bon voyage on May 28 when he sailed for England by the R.M.S. "Orsova." He expects to return early in November.

Agents and Agencies

George Wostenholm & Son Ltd., cutlery manufacturers, of Sheffield, are represented in Australia by Mr. V. T. Cranmer, of Broughton House, 181 Clarence-street, Sydney, and in New Zealand by Nash & Kissling, Box 273, G.P.O., Auckland, and Box 310, G.P.O., Wellington.

Mr. Louis A. Scott, of 200 Castlereagh-street, Sydney, has been appointed Australian agent for the following manufacturers:—

Clappertons Sons Co., Deseronto, Ontario, Canada (high class cut crystal glassware).

B. E. Siegheim, Finsbury-street, London ("Elfin" vacuum flasks).

Grah & Plumacher, Solingen, Germany ("Gotta" brand razors).

The French Wreath Co., Islington, London (glass cased metal and porcelain wreaths, statuettes, etc.).

Mr. F. C. Carr, of Carr & Elliott, 204 Clarence-street, Sydney, who recently returned from a visit to England via U.S.A., has secured Australian representation for the following manufacturers:

Kosmos Flaschen, Berlin, (vacuum flasks).

Muklow Bros. Ltd., Blackheath (wrought pipe fittings).

Robert Blackwell & Co. Ltd., Croydon, Surrey, (bituminous roofing).

Guarantee Liquid Measure Co. incorporating Fry and Marvel oil and grease delivery pumps.

Redmayne & Isherwood Ltd., Blackburn (cotton waste).

Northern Rubber Co. Ltd., Retford (hood top material for motor car work).

John Dewsbury & Son Ltd., Walsall, (bridle bits, stirrups, spurs, etc.).

Job. Wheway & Sons, Walsall (hames, electrically welded chains and cart gear).

A. S. Smith & Sons, Walsall (harness furniture).

With regard to the three last mentioned firms, representation takes effect as from July 1 by a special arrangement due to the organisation of Carr & Elliott, embracing South Africa, Australia and New Zealand.

Rinne, Harris Pty. Ltd., of 434 Collins-street, Melbourne, are agents for the following manufacturers:—

Bergische Stahl-Industrie, Remscheid, Germany (malleable fittings).

Gebr, Vetter, Benrath, Germany (wrought iron pipe fittings).

Röhren-Verband G.m.b.H., Düsseldorf, Germany (tubing).

Mannesmannröhrenwerke, Düsseldorf (gas cylinders).

Friedr. Wilh. Stosberg Erben, Solingen, Germany (cutlery).

F. Schichau, Elbing, Germany (heavy machinery).

D. Ditmar, Brünner Bros. Ltd., Vienna, Austria (lampware, etc.).

Herm. Kochenrath, Remscheid (files).

Ferdinant Schuchhardt, A.G., Berlin (telegraph equipment, wireless, etc.).

Bohm & Kruse, Bremen, Germany (box-nailing machines).

C. Behrens, Alfeld-Leine, Germany (shoe lasts).

Ariadne Draht & Kabelwerke A.G., Vienna (wires and cables).

Dortmunder Drahtseilwerke, Wohlfahrt & Liesenhoff, Komm.-Ges., Dortmund, Germany (wire ropes).

Vereinigte Elektrotechnische Fabriken A.G., F.W., Buschu, Gebr. Jaeger, Lüdenscheid, Germany (electrical fittings).

Hi-Speed Tools Ltd., Galt, Ontario, Canada (steel chasers for the Landis Threading machines).

Ramie Union, Enschede, Holland (lamp wicks, technical porcelain, etc.).

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Sporting Window from New Zealand

From an occasional correspondent (17/208) a photograph has reached us of a sporting wondow dressed for the Wairoa Stores Ltd., of Dargaville, Auckland, by Mr. Frank Gould, the manager of the hardware department.

Our correspondent speaks of this particular effort as "the most effective display of such a character I have seen in New Zealand, and the care and attention shown in the layout indicates Mr. Gould's idea of appealing to his clientele at such a season. I think you will agree with me that it is very difficult with ordinary hardware material to secure a good 'picture' in window dressing, and one generally relies upon extraneous or often crude handling of the 'goods' available. In this instance the whole of the items gathered in the window are really apropos to the matter in hand, namely, an effective display of sportsmen's requirements.

"To explain the photograph, the central foreground is occupied with a very natural display of ducks swimming in a miniature lake. Decoy ducks are floating in this pond, which is made of plain galvanised iron, having a depth of about 6 in. The pond has been strewn with sedgy-soil to make the setting and ensemble as realistic as possible. Around the window and the pond are natural grasses such as one finds everywhere. Other forms of life are also seen, and every effort made to present things au-naturel. The very grasses are sprouting in the window.

"Very effectively, but with that apparent careless placing which the sportsman would use, gun, fishing tackle, cartridges, and other lines are disposed about the place, so that without obtrusion they cannot escape the eye. One cannot fail to note the fine stag heads, the splendid cock pheasants, and by the left hand window bar a beautifully plumed pukeko. On the stand just in front of the well-painted background are the cruel hawk and its quarry held down tightly by formidable claws. This is very effective also, for the small bird has been marked with a haematite or blood coloured material to suggest the death-wound inflicted by the enemy.

"There can be no doubt that the painted background of a river and bush scene adds much to this fine display, and to the thoughtful manner in which a truly artistic idea has been carried out."



Producing Pure Iron.

A new era and a renaissance of Sweden's iron industry may result from a new invention made by a Swedish mining engineer, M. Martin Wiberg, whereby a great reduction in the cost of producing pure iron is made possible. This invention was recently demonstrated before the foreign experts attending the Iron and Steel Congress during their visit to the Sankvikon ironworks, and aroused intense interest. The inventor has worked out his idea very quietly with the support of Jaernkontoret (Iron and Steel Institute), avoiding publicity as far as possible. Careful tests have now been concluded which seem to prove the practical efficiency of the method. The ore reduction process is effected by carbonic gases circulated and regenerated in an electrical carburettor furnace. By special contrivances the gas is purified from carbonic acid and sulphur, and either coke or charcoal may be used, while the electric energy employed is reduced to about a third of the amount employed in previous processes; the quantity of fuel required is also considerably less. Iron ore of a comparatively low percentage, 45 per cent. for instance, can be advantageously utilised by the new method, and the reduction in the cost of producing pure iron of the highest quality is expected to be of vital importance to the competitive power of Sweden's iron industry. —Exchange.

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Publications Received

"Cyclops" Toys.

A booklet issued by Cyclops Ltd., of Leichhardt, Sydney, illustrates in colours the various wheeled toys they make for children: motor-cars and trucks, bicycles and tricycles, "scooters," and what not. The front page bears this intimation: "Every toy manufactured by us is fully guaranteed against faulty material or workmanship."

S.A. Chamber of Manufactures.

The fifty-seventh annual report of the South Australian Chamber of Manufactures Inc. for the year 1926 is accompanied in its printed form with a report on the manufactories and works of that State, a comparative statement of production for the whole Commonwealth, and lists of the members of the Chamber classified in different ways. Altogether the little volume runs to 84 pages, 9½ x 6, and is frontispieced by a portrait of the president for 1925-27, Mr. Robert Duncan, of Duncan & Fraser Ltd. Founded in 1869 the Chamber has now a membership of 443, representing a wide range of manufacturing interests.

The Chamber has its own building in Pirie-street, Adelaide, and the secretary is Mr. H. E. Winterbottom.

"Beacon" Brassfoundry.

Smith & Davis Ltd., of Birmingham, have issued a new export catalogue for 1927. Beginning with the section "about ourselves," with portraits of the four present directors, which appeared in a previous issue, the little volume goes on to illustrate a variety of the lines regularly manufactured by the firm. During the year 1926 they claim to have turned out over 230,000,000 individual stampings and pressings. The fact that conditions of sale and other information are given in eight different languages is suggestive of the various markets to which these millions of articles found or find their way. Many of the prices have been reduced. The catalogue runs to over 100 pages, 10 x 6, and has coloured covers.

The firm's agents in Australia are Walter A. Cox Ltd., of 195 Clarence-street, Sydney; and in New Zealand, A. E. McGee & Co., of 16-18 Commerce-street, Auckland.

Steel Reinforcements for Concrete.

A pamphlet received from the Weston Concrete Engineering Co. Ltd., of High-street, West Norwood, London, S.E.27, contains correspondence between their Mr. H. Weston and the Ministry of Transport regarding the relative value of mild steel and high tensile steel in reinforced concrete construction.

According to its official specification the Ministry considers 6¾ lb. of drawn steel wire as equivalent to 10 lb. of mild steel rod, as road reinforcement. Mr. Weston took exception to this, maintaining that for such purpose the high tensile steel was not entitled to preferential treatment. A modification of the Ministry's demands was suggested by Mr. Weston, who submitted in support of his general conclusions reports by David Kirkaldy & Son, of the Testing and Experimenting Works, London; Dr. Oscar Faber, consulting engineer; Considere Constructions Ltd., of Westminster, London; and Mr. G. Topham Forrest, superintending architect of the London County Council. While agreeing "that a higher precentage of steel than at present used in reinforced concrete roads would be greatly desirable," the Ministry refused to modify its specification, and with its consent Mr. Weston has published the whole correspondence with the reports, which he cited, and a concluding article on "Reinforcement for Concrete Roads."

Power Alcohol.

One of the most important of our national industrial problems is the supply of liquid fuel for motor vehicles. Since 1918 the consumption of petrol in Australia has increased from 17,000,000 gallons to 120,000,000 gallons per annum. At the present rate of increase the quantity consumed per annum doubles about every three years, and if this rate is maintained the quantity required by the year 1940 would reach the enormous amount of over 3,000,000,000 gallons.

Much has been spoken on this subject, and within the last few years at least two steps have been taken by the Federal Government to encourage the production locally of a portion of the motor fuel required. The first step was the granting of a bounty on power alcohol made from certain locally grown crops, and the other was the recent petrol tax. Although this tax acts primarily in favour of petrol distilled in Australia from imported crude, it also encourages the production of petrol from the local shales. Failing the discovery of flow oil in Australia, however, it is extremely unlikely that the production of petrol from this source will be sufficient to materially affect the position, and if Australia is to be even relatively independent of outside sources for its motor fuel, other steps must be taken to meet the situation.

This question is discussed at length in a report recently prepared by the Power Survey Sectional Committee of the Australian Commonwealth Engineering Standards Association, and now published by that body. The various aspects of the case are presented, and constructive suggestions are made which should materially assist the solution of the problem. Copies at 1/- each may be obtained at the association's headquarters, 16 College-street, Sydney, and at the branch offices in all States.

Wood Rendered Fireproof.

A recent official report states that a wood that cannot burn is about to be manufactured in Norway for industrial uses.

Experiments with a wood impregnated by a material which is said to make it absolutely fireproof have been carried on near Oslo, Norway, for more than a year. The process is the invention of a Norwegian engineer.

To test the practical efficiency of the wood treated with this substance in contact with cold, water or fire, a building composed of the wood has been erected. The experiments are said to have been very successful, and those engaged in the tests state that it is impossible to set the building on fire. It is also claimed that wallpaper can be coated with the material so that the interior, as well as the exterior of houses can be rendered fireproof.

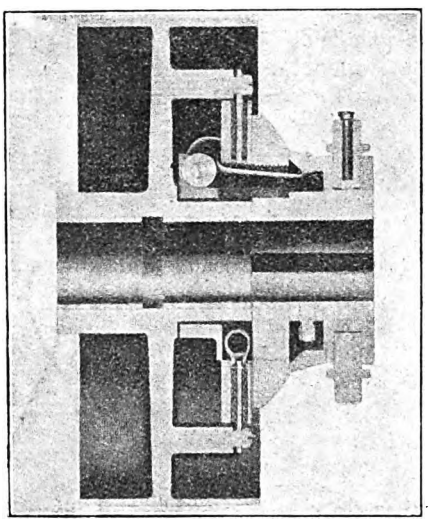
In office work as with factory work, a good deal of monotonous labour can be either cut out or largely reduced by the application of intelligent planning. Directly the staff becomes interested in more efficient methods which are calculated to help them as well as the business, considerable improvement can be brought about. The common idea is that new methods are introduced solely to increase output and to reduce staff. If the employees are taken fully into your confidence this notion will soon be dissipated, particularly if the salaries of the clerks are increased as their efficiency improves, which should be the practice in any well-organised concern. Greater output and increased net profits should be the means of giving better returns to all concerned. Clerks, however, who do not fully understand their jobs are likely to clog the machine, and it is needful that they should receive adequate training as to their duties.

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Machinery

Disc Clutch.

The Conway Clutch Co., of 1956 West 6th-street, Cincinnati, Ohio, U.S.A., are marketing a line of disc clutches in both single and multiple types and in three sizes. The hubs will accommodate shafts varying from 1 to 2⅛ in. in diameter, by sixteenths.



In the single disc type, illustrated, the discs are made of heat-treated steel and are lined with metallic woven asbestos. The faces of the lining are ground to prevent dragging against the discs. The multiple-disc type operates in oil, but the single-disc type runs dry.

The clutch exterior is of cylindrical contour, and no flying bolts, toggles, levers, or pins are exposed. The actuating members are completely enclosed, and their engagement has been designed so as to provide convenient means for making adjustments. The adjusting ring is split, and when clamped on the thread becomes practically integral with the clutch carrier. The three actuating levers employed are made of chrome nickel steel, heat treated, and are designed with a liberal factor of safety. In their underslung position a large lever ratio is provided so that only a slight pressure is required to engage the drive. When the cone is withdrawn, the centrifugal force acting on these levers is sufficient to disengage the clutch, but springs are provided to make the action positive. The deflection angle on the cone member is such that vibration cannot cause the clutch to disengage until the shifting lever is withdrawn. The keys are heat-treated to minimise wear.

This clutch is said to embody features for safety, simplicity, and balance, as well as considerable power capacity in its limited space.

Portable Die-Grinder.

The United States Electrical Tool Co., of Cincinnati, Ohio, U.S.A., have developed a portable grinder for use in grinding dies, welded parts, fins on light castings, and on similar parts where speed and accuracy are required.

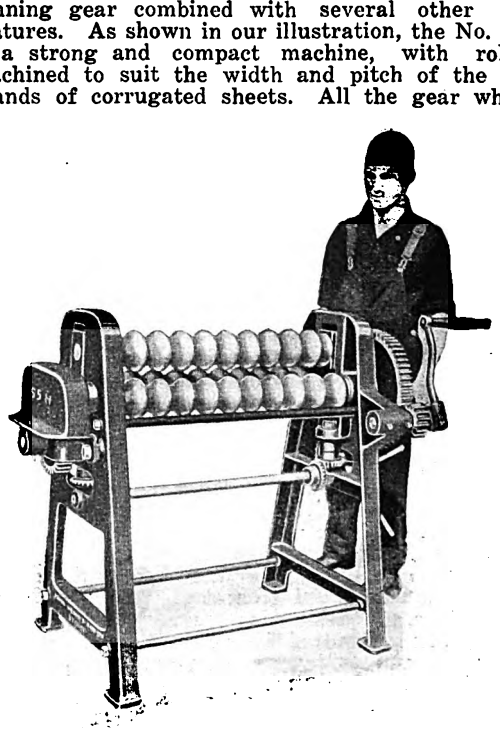
The adjustable back handle permits operation within a limited space. The spindle speed under load is 11,000 r.p.m. The complete tool weighs 12 lb.

New Turbine Locomotive.

A condensing turbine locomotive of the Ljungström type, has recently been delivered to the Swedish Government Railways by Nydqvist & Holm. This latest specimen of turbine locomotive is a great improvement on the first one delivered. The turbine is of about 2000 h.p. at 10,000 revolutions per minute, making it the most powerful steam locomotive in Sweden. It will most likely haul the express train Malmö-Stockholm, about 400 miles, which it will do without renewing water or coal on the distance. It can run about 600 miles without replenishing the water supply. This is the fourth turbine locomotive delivered by the firm, of which one has gone to Argentina.—"The Swedish-Australian Trade Journal."

New Curving Machine for Corrugated Iron.

All classes of sheet-metal working machines are produced by John Heine & Son Ltd., of Leichhardt, Sydney. With expert designers on their staff, moreover, they are always endeavouring to improve upon old or conventional forms. Exemplification of these endeavours is evidenced to a marked degree in a new model—No. 55H—machine for curving corrugated galvanised iron which the firm are now introducing. Whereas older types of this machine frequently necessitated the power of two men to control in operation, the new model is very easily controlled by one man, such advantage being largely obtained from the construction of particularly easy running gear combined with several other new features. As shown in our illustration, the No. 55H is a strong and compact machine, with rollers machined to suit the width and pitch of the best brands of corrugated sheets. All the gear wheels

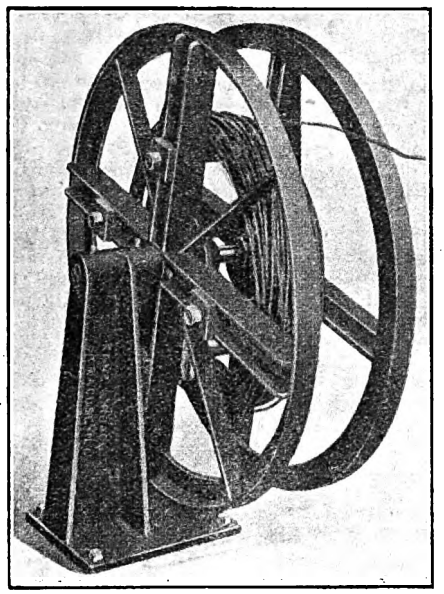


are machine-cut, and the top roller is raised or lowered with parallel adjustment set by the workman without altering his position while operating the machine. Mass production methods as practised in this firm's works have enabled them to produce this machine at a particularly moderate price without sacrifice of the high-class workmanship for which they have earned an enviable reputation.

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Wire Reel.

Kane & Roach, of Syracuse, N.Y., U.S.A., have designed a wire reel for use in connection with their wire manufacturing equipment, or similar purposes where a reel of this style is required.

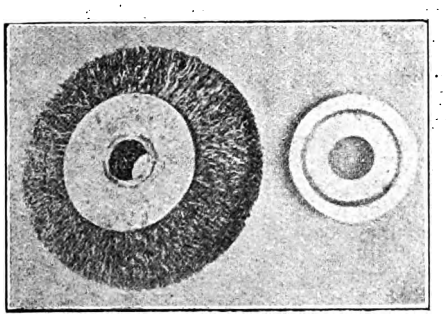


The reel will handle a coil up to 50 in. in diameter. It is adjustable in and out with a maximum width of 12 in. The spindles that support the coils are adjustable for any inside diameter of coil. The reel is rugged in construction and is designed to carry a 300 or 400 lb. coil.

Circular Brush.

The Specialty Manufacturing Co., of Berea-road, Cleveland, Ohio, U.S.A., have introduced an improved circular brush, for which many advantages are claimed. The brushes are made up in single thickness as shown in the illustration, or the units may be built up in gangs to form wide-faced brushes, held in place by the pressure of the shaft end-washers, or clinched together as a solid unit.

A pair of strong galvanised sheet metal stampings, provided with inwardly turned projections or teeth, hold the brush material on either side. The



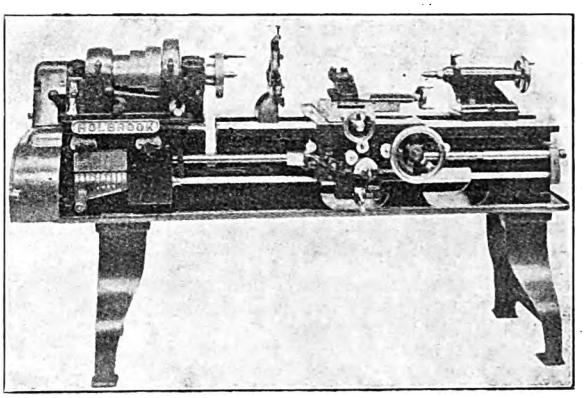
tufts of bristle, fibre, wire or other material are accurately weighed to assure each tuft of the brush being equally balanced with the rest. Each tuft is then bent into V form and inserted between the successive teeth. A few turns of binding wire are then passed completely around the inside of the V, thus drawing the tufts down tightly into position between the stampings in such a manner as to prevent the material from working loose or flying out. The stampings are closed down on each other and the teeth, passing through the openings in the opposite stamping, are clinched over, thus compressing the material solidly together. The brush is then trimmed to a true circular shape.

Among the advantages claimed are that the accurate weighing and spacing of the tufts makes the working surface of the brush equally dense at all points of the circumference, and, as a result, perfect balance is obtained even at high speed. When assembled in gangs the units will pack together much closer than ordinary brushes because the construction allows a greater weight of brush material to be used. The increased density of the working surface thus obtained is said to be not only conducive to longer wear, but it also permits a more even finish.

When it is desired to mount the brush on a polishing spindle of smaller diameter than the stamping, a special reducing adapter stamping carrying a smaller hole is fitted into the central opening.

New 13 in. Swing Lathe.

Holbrook & Sons, of Stratford, London, E., have introduced a cone pulley lathe which swings 13 in. in diam. over the bed by 36 in. between centres, 9 in. diam., being swung over the saddle, and 24 in. diam. in the gap, which is 6½ in. wide from the faceplate. The firm are building these in batches of fifty.



A cone pulley drive is provided, the three steps ranging from 9 to 6½ in. for a 2¼ in. belt, and with sliding back gears and two-speed counter-shaft 12-spindle speeds are available, the range being from 15 to 400 r.p.m.

The head provides large self-lubricating bearings for the spindle, which runs in white metal, the front bearing being 3 in. diam. by 3¾ in. long, and the spindle has a 1$\frac{9}{16}$ in. hole to clear, 1½ in. diam. black bars. The spindle nose is 2½ in. diam., threaded to B.S. fine threads and bored No. 3 Morse taper. The quick change gear box gives 32 direct feeds, cutting threads up to 28 per inch. All gears are of steel; the 32 feeds for each spindle speed range from 8 to 112 per revolution of the spindle.

The bed has raised vees for guiding the saddle and tailstock, the apron is double-walled, the lead-screw is corrected, the double clamp nut is of phosphor bronze, the speeds are interlocked and are obtained from a drop out worm; both surfacing and top slide screws have micrometer divisions, and the top slide swivels completely, being divided 45 degrees each side of zero, while the openside toolbox, for inch by ½ in. tools, has an elevating boat piece for the adjustment of the tool. The lathe takes 1½ h.p. and weighs net 1750 lb.

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Engineering and Other Tools and Supplies

Buyers' Notes for Retail Dealers

Sydney

Bell's Asbestos Australian Agency Ltd., of 313-15 Kent-street, Sydney, will move on July 1 to more commodious premises at 226-28 Sussex-street. They are manufacturers of Bell's "Rufer," "Spinda," "Condor," "Syren," "Quadruple," "Dagger," "Loco," and various other steam and water packings. At their Sydney address they manufacture all their asbestos and magnesia insulating compositions for boiler and pipe laggings. They also make under license to Filtrators Ltd., London, the "Filtrator" apparatus for preventing the formation and promoting the removal of scale and encrustation in boilers, economisers and pipes. The prevention of heat radiation from steaming plants is expertly handled by this firm.

Briscoe & Co. Ltd., of 383-85 Kent-street, Sydney, have full stocks of Ahrem's "Good Line" wrenches, hack-saws, combination pliers, and blacksmiths' and farriers' tools. The Stanley make of plane irons, steel scrapers for the use of cabinet makers, and the well-known "Crest" brand of drills are available, together with semi-rotary pumps such as "Crest," "Runwell" and "Douglas" brands. Weston's pulley blocks and chains in various sizes, bottle-jacks and "Cape" waggon jacks, also "Footprint" pipe vyces, engineers' hammers in every size and weight, are now ready for delivery. "Tyzack's" saws are prominent among a variety of other makes displayed. Large stocks of Champion drilling machines in Nos. 101, 102 and 103, besides a comprehensive range of "Buffalo" forges Nos. 3 (lever), 210, and 061 (both hand driven) are carried by this firm.

Broomfields Ltd., of 152-154 Sussex-street, Sydney, have new supplies of bench drills, hand drills in all sizes, bit stocks for either iron or wood work, and Mathieson's bits. Stocks and dies of Oster make are now stocked. Chisels by prominent English and Continental manufacturers are in a wide variety of styles and sizes. Ellin's "Footprint" pipe wrenches from 5½ in. to 16 in., also genuine Wallworth "Stillson" pattern wrenches in sizes ranging from 6 in. to 24 in., are on the shelves. Agricultural wrenches, branded P.S.N., can be supplied in any quantity. "Wing" compasses with bright round shanks, cold chisels either Boker or colonial make, are in abundant stocks. Large orders for any of the following tools can be immediately met, namely, Tyzack's hacksaws, 10 and 12 in., try squares in all sizes, Disston's sliding bevels, Stanley's morticed edges, engineers' hammers of all reliable brands, and Clyburn's spanners from 6 in. to 24 in. London pattern iron pulleys with swivel hook or swivel eye, blocks for manila and wire rope in single, double, treble and snatch, also iron-bound wooden blocks with swivel hook, shackel and clip hooks are additions to previously depleted stocks. Extra supplies of wire and manila ropes, and crane and mooring chains are now to hand. Full stocks of P. H. Muntz & Co.'s "3 Crown" metal sheets, 6 ft. x 2 ft., and 6 ft. x 3 ft., and sheeting from 10 oz. upwards, are now available, together with tubing for plumbing and engineering uses.

Bullivants' Australian Co. Ltd., of 331-33 Kent-street, Sydney, have now in stock small flexible cords for fanlights, raising and lowering arc lamps and sash cords. Galvanised wire ropes of all sizes and weights are ready for use. The present plant has a capacity and range covering all general Australian requirements. Ropes ranging from ¼ in. to 7 in. circumference comprising all constructions up to seven strands of 37 wires, are now being manufactured. To keep pace with requirements, additional plant is to be laid down, the wire-drawing mills of Great Britain and America having been visited by representatives of the company in order to adopt the latest in methods and machinery. The company have recently issued an interesting catalogue containing much information of value to users of wire rope.

The Eagle & Globe Steel Co. Ltd., of 379 Kent-street, Sydney, announce that large supplies of the new "Triple Griffin" super tool steel and "Double Griffin" super chisel steel for cold chisels and setts, have arrived. These are additional to large stocks of "Kite" brand oil hardening non-shrinking steel, a special type for dies, S.D. 16 a case-hardening nickel steel; S.D. 12 air hardening nickel chrome steel and S.D. 20 oil-hardening nickel chrome steel for shafts, axles and gears always in mesh. "Triple Griffin" branded steel is made for the construction of lathe tools at ordinary speeds where good finish is required. It is also suitable for the manufacture of drawing dies for metal tubes, press tools, taps, reamers, dies and punches and rollers for hard materials. Heat from 780 deg. C. to 900 deg. C. is necessary to make this material workable, and between these temperatures there is a remarkable freedom from breakage risks. Expansion is perceptible at higher temperatures, enabling tools such as drawing dies to be hardened repeatedly without in any way deteriorating the steel. "Double Griffin" quality is of the non-tempering air-hardening variety with which, when utilised in the construction of cold chisels, care must be exercised that the necessary temperature of 950 deg. C. is not exceeded. To relieve any hardening effects a gradual cooling is necessary, after which reheating to 650 deg. C. to 700 deg. C. should be the procedure. Other steels are also stocked by the company, whose circular saw factory in Sydney has been enlarged.

The Engineer & Sawmill Supply Co. Ltd., of 32 Clarence-street, Sydney, have added to their selling lines a full range of contractors and council machinery such as concrete mixers, bitumen kettles and tar boilers from 20 to 1000 gallons, road rollers of all kinds, and graders, all of which are carrying their own trade mark "Premier." These are Australian made and fully guaranteed. They are the sole N.S.W. agents for the well-known "Rumely" oil pull tractor in all sizes from 15 to 60 h.p. It is specially suitable for all classes of road making work, driving crushers or any job where economical power is required. Spear & Jackson's sawmill goods have proved a very successful line with them. Bearing the trade name "Tessco," a line of all grades of oils and greases are being sold by this firm, at reasonable prices.

Australian made lines which can be supplied from large stocks are "Roko" woven hair belting, pressed steel pulleys, wood working machinery, Purcell Engineering Co.'s products (including lathes, drills, hacksaw machines, and oil and other engines), belting in leather and rubber, electric motors, also Patience & Nicholson's stocks and dies and screwing

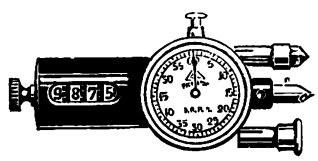
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tools of every description, and "Akeroyd" split roller bearings. Stocks of emery wheels and John Bedford & Co.'s Sheffield made files are in all sizes.

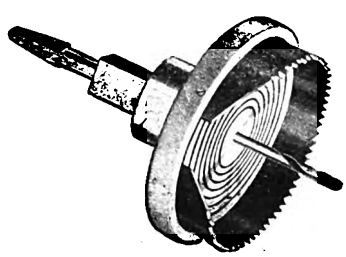
Farleigh, Nettheim & Co., of 80 Clarence-street, Sydney, are now stocking finishing machines, rollers and skyving machines for use in boot factories. Large supplies of awls, peg stabbing, sewing and stitching blades, Swedish cutting nippers and M.J.W. rasps are in stock. Buffers, waist springs and last hooks, American and Continental knives are among the many low-priced lines. Sets, consisting of hammer, rasps, combination glazing irons and knives are available to storekeepers for resale to amateur boot repairers.

W. S. Friend & Co., of 113 York-street, Sydney, have comprehensive stocks of Crab winches in all sizes, hand pulleys and bottle-jacks. Tinsmiths' tools and machines embracing different kinds such as bottom closing, burring and seaming, are available. Supplies of perforated zincs in a large variety of punchings and gauges are new, as are the "Herbrand" tappet wrenches. The latter are constructed of vanadium steel, and can be procured in any size. Boker's box spanners are in sets of six, comprising extension piece for spanner, turnscrew and crescent pattern wrench, attractively boxed. "Griffin" firing shovels are also on hand. This firm are the N.S.W. agents for "Champion" easy stocks and dies, of which all sizes can be supplied in sets, both Whitworth and S.A.E. thread patterns. Extra dies and guides, Oster stocks and dies, together with Wallworth make, are now to hand. Engineers' vyces of the "Record" Sheffield make range from ½ to 6 in. while woodworkers' vyces can be supplied in 9 in. pattern. A new shipment of the Carborundum oil stone No. 110 has now arrived.

T. M. Goodall & Co. Ltd., of 303-05 Kent-street, Sydney, are agents for the Revolution Counter "Probator," combined with an anti-magnetic stop watch. This new and handy precision apparatus should meet



a long-felt want, because the combination of counter and stop watch replaces in many cases the expensive hand-tachometer. It shows the speed (per minute and fractions) of rotating shafts, shafting, motors, and engines. Counter and watch are connected in such a way that they always work simultaneously. The spindle runs loose so that the watch and counter are always set in operation by pressure which, when withdrawn from the test object, causes an immediate stoppage enabling the result to be read off. One



pressure of the finger on the button winds the watch and sets the hand at zero simultaneously. It is workable for one minute at each test, so that accuracy can be maintained. Boxed in well-made cases, velvet lined, including nickel-plated rubber pointed bit and flat cap to slip over triangular point, this line is very reasonably priced.

Another new tool of which stocks are available is the Misener rotary hack saw. This is reputed to cut clean and finished round holes in steel, sheet metals, cast iron, slate, wood, plaster, fibre and bakelite, and with the assistance of abrasives, marble, tile and porcelain may easily be cut. Type B. No. 1 cuts eleven sizes, B. No. 3 six sizes, B. No. 2 nine sizes, and B. No. 4 six sizes.

Other new lines offered by this firm are "Cooledge," a scientific preparation for use in conjunction with cutting tools of every description, and "Perfection" flexible belting. Craftsmen's tools forming regular stocks are B.S.A. In large assortments also are American and Continental tools.

Alfred Herbert (Australasia) Ltd., of 503-05 Kent-street, Sydney, are featuring the newly arrived No. 2a auto lathe. With this machine all operations are automatic except chucking, while the lathe stops instantly when the work is finished, or after a cut if required. The bed is a box casting and is mounted in a tray of large size. Driven by spur gearing, having a high ratio, the headstock is totally enclosed and forms an oil bath for the gears and bearings. The countershaft is supplied in two forms. For general work a double countershaft is used, providing for a wide range of spindle speeds, but where used for repetition work only a single countershaft is necessary, and this can be supplied from stock. Demonstrations of the lathe's capabilities are readily given by the firm.

R. V. trimmers, new to this firm's list, are electrically-driven, and are used to trim, buff, clean, fettle or polish all sorts of materials. Consisting of a special electric Universal motor patented in every country throughout the world, they develop 1 h.p., and operate on A.C. or D.C. The motor shaft is at the fore end, and is extended and kept rigid by a strong metal cover. It is disposed to be fitted with grinding wheels, pads, mobs or any suitable attachment for a particular job. At the rear, a strong and easy cut-out switch is located on a handle. The weight of the machine is only 24 lb., and it is suspended by an electric current supplying cable placed in such a way as to allow the apparatus to be worked in any position without fear of cutting the cable. A counterweight and two pivoting pulleys fixed on the cable complete the setting. The R. V. trimmer has a revolving speed of 6000 r.p.m., and only requires a very slight pressure to carry through any grinding and thus avoid overheating of materials. It is sold complete in attractively varnished wooden cases. R. V. universal grinders are also new.

Coventry patent drill speeders, drill di-speeders, and quick change drill chucks, now admitted into Australia free of duty, may be obtained here at attractive prices. Other engineering tools are well stocked.

Hill, Magill Ltd., of 131-33 York-street, Sydney, are stocking the usual wide range of tools and requisites for artisans' requirements. All the prominent makers are represented.

Holdsworth, Macpherson & Co. Ltd., of 252 George-street, Sydney, announce the arrival of assorted stocks of braces, wrenches (Stillson pattern), secateurs and engineers' hammers from the factory of Peck, Stow & Wilcox Co., U.S.A. All these lines are branded "Pexto," are well and strongly made, and are offering at easy prices. They have also a new line of bit stock drills in all sizes, from ½ in. round shank. Engineers' taps, plug and taper, and files of "Cyclop" make, are in every variety.

This firm are the agents for F. E. Myers & Bro., Ashland, Ohio, U.S.A., and on their behalf are dis-

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playing the new "Cyclone" motor car washing machine, which should appeal to garage proprietors, as it can be used with either one, two or four guns, while at the same time "boosting" the city's water supply up to 350 lb. pressure. The chief features of these plants are that they run in oil, are simple in design, have double cap expanding plungers, and white porcelain lined steel tubed cylinders, hard bronzed valves and seats, are chain driven, and allow no waste of power. All power developed goes into the gun, which can be adjusted from a coarse driving stream to a soft fine mist.

A full range of Myers Bulldozer self-oiling power pumps, also self-oiling working heads for cylinders up to 8 in. diameter, and depths up to 700 ft., are full stocked. "Gould" centrifugal pumps of latest design fitted with water seal with fast and loose pulleys in all sizes are now on hand.

John Keep & Sons Ltd., of 104-08 Sussex-street, Sydney, report as new lines "Gedore" crescent wrenches in sizes 4 in. x ⅝ in., 6 x ⅞ in., 8 x 1 in., 10 x 1⅛ in., and 12 x 1⅜ in.; also similarly branded double-ended spanner 6 to 8 in., and 8 to 10 in. Socket wrenches, bearing the trade mark "Nonebetter" Nos. 1, 3 and 3000, and Stanley saw sets, pistol grip for cross cut saws, No. 43, are also new. A very good tool is the "Shetack" saw for cutting corrugated iron of any thickness and length. The frame is constructed of Jessop's steel. For ebonite fibre and similar materials a blade with fourteen teeth to the inch is necessary; for thick sheets twenty-two teeth, and for thin sheets thirty-two teeth. Special eight teeth blades are made for the cutting of asbestos and tiles. Still another new addition to this firm's supplies is a speed screw flooring cramp. Constructed so that it will operate to within 2½ in. from the wall, and also gripping on all joists from 1 to 3½ in., this should prove a worthy innovation. It has interchangeable parts, and duplicates can be obtained from stock.

Lyon & Milling Ltd., of 62 Clarence-street, Sydney, have ready for immediate delivery large stocks of tools and supplies for all tradesmen's requirements. Among the many reliable brands are Mathieson, Disston and Nicholson marking gauges, ratchets by Chapman, Cronks' fencing pliers, Lupkin's measures, while vyces come in Athol and jewellers No. 10.

Thomas McPherson & Son, of 493 Kent-street, Sydney, are large importers of Moss & Gamble's high speed drills; also Morgan's crucibles for brass and steel. For the motor and engineering trades are black and bright bolts and nuts. Large consignments of metal thread screws for electrical engineering trades, with a general assortment of small tools and requisites for foundry and engineers' uses, have replenished stocks. Universal grinding wheels are new arrivals at this firm's store. Hattersley's transmission gear, such as shafting, Plummer blocks and hangings, are now obtainable in all sizes.

McPherson's Pty. Ltd., of 51-65 Bathurst-street, Sydney, have recently added to their comprehensive stocks a new burring reamer branded "Triumph." This is a practical tool with ratchet device, and is suitable for gas works and other manufacturers of heating apparatus; in fact, by almost any type of work in connection with tubes. It may be used for the conical reaming of tube ends so as to avoid the damage that might result from too narrow tubes. The cutters are interchangeable, and can be resharpened. Spare cutters are only supplied in sets of three.

Spare parts for all machinery are in supply, while the stocks of high-class machine tools have recently been augmented by fresh supplies.

Noyes Bros. (Sydney) Ltd., of 115 Clarence-street, Sydney, are now making a speciality of cement making machinery, and marble and slate sawing plants. "Denver" rock drills and motor hand drills of "Hisey" brand can be supplied, and so, too, "Hisey" adjustable eye shields for grinding machines, open end and full safety combination wheel guards, bench grinders, and selective speed buffers.

A new agency acquired is that for the British Ropeway Engineering Co. Ltd., England, and manufacturing concerns are notified that installations of aerial ropeway mono-cable and bi-cable systems, telephers, cable-ways and modern mechanical transport plants for all purposes can now be effected.

Another new agency is that for Alexander Wilson (Aberdeen) Ltd., manufacturers of marble and slate sawing machinery, while pulleys, hoist blocks, winches, jacks and chain slings of many patterns are available.

Scruttons Ltd., of 161 Clarence-street, Sydney, have newly acquired stocks of Starett's micrometer calipers, catalogued No. 224AA, with a range for oil intermediate measurements from 0 to 4 in. The tool is furnished with accurately positioned and readily interchangeable anvils, and is suitable for measuring pistons, crankshafts, cam shafts and wrist pins. The frame is made from forgings, and has black enamel finish. Decimal equivalents are stamped on the thimble. Furnished with or without ratchet stop, the new tool is low priced. Also new is a crankshaft gauge, which effectively proves that crankshafts, crank pins and wrist pins wear out-of-round. It also measures their exact diameter. After removing worn bearings from a crankshaft an application of the gauge will instantly and accurately show by motion of pointer on dial face all imperfections. This gauge is graduated in thousandths of an inch, and only a few seconds are needed to attach, operate and remove it. It is made in two sizes—one for round parts, 1 in. to 2¾ in., and another for 2 in. to 3¼ in. Craftsmen's tools of every description are heavily stocked at this warehouse.

Melbourne

Campbell, Walker & Co. Pty. Ltd., of 411-13 Lonsdale-street, Melbourne, are able to supply a large range of carpenters' and other tradesmen's requisites, specialising in woodworkers' tools generally.

Recent shipments have brought a good selection of the well-known Stanley goods, including not only the planes for which this company are noted, but a range of such appliances as mitre boxes, levels, and other accessories of the trade. Chisels are stocked of Taylor's make, and are available in firmer, registered, and bevel edge patterns. Leading English and American makers are represented by a full supply of braces, which includes every class of ratchet brace usually called for. The firm also handle hand and breast drills of all kinds, Disston's and Spear & Jackson's saws, and the everyday lines such as gimblets, turnscrews, spokeshaves, and hammers.

Nicholson files and rasps for all purposes are now opened. This brand is firmly established on the market, and can be recommended. Mention should be made of a supply of rules and tapes of all kinds, comprising the principal numbers as made by John Rabone & Sons Ltd.

John Danks & Son Pty. Ltd., of 391-403 Bourke-street, Melbourne, carry a complete range of engineers' hand tools, carpenters' tools and accessories, and practically all appliances for artisans. The special engineers' instruments made by Starretts cover most of the needs of the worshop in this direction, and these are amongst the leading brands stocked. Many instruments of precision are included in this section, such as micrometer calipers, gauges,

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Vernier calipers, and the like. The Vernier as applied to calipers, named after Pierre Vernier, who, in 1631, invented the principle of the device, enables the user to determine readings to ten-thousandths of an inch. It is considered that correct readings may be obtained if the instrument is kept free from dirt, any difficulty experienced in these minute calculations being usually due to the fault of the operator. The Vernier principle is, of course, applicable to other appliances also. Drill and steel wire gauges, screw pitch gauges, protractors, and a host of useful tools are in the Starrett range.

Coming to the more familiar tools, a very large range of spanners and wrenches is available. So well catered for are users in this section that enumeration is almost impossible. Every need of the workshop, garage, or home worker is met with some special device. These are usually to be had for a few shillings, and for the tradesmen a simple type of wrench may save hours of time.

Special trade tools, tinsmiths', plumbers' and farriers', cover another section. Several good punching and shearing machines are to be had. The "Scandia," as an example, is a little appliance which cuts § in. sheets and flat bars to ¼. Extra blades may also be obtained. Ironmoulders' tools include cleaners, boss tools, trowels, upsets, and casting brushes, of the popular Monks' brand.

For woodworkers the firm have a fine catalogue of lines. All well-known makers are here represented, and mention may be made of a series of planes by Edward Preston & Sons Ltd. These English makers turn out some planes for particular uses which are worth inspection. A patent adjustable shoulder rabbet plane is finely constructed; all the Preston goods are highly regarded by the trade. There are again a great assortment of Stanley's tools, covering practically every requirement of the carpenter and cabinet maker. A selection of bricklayers' and plasterers' appliances and tools includes trowels—gauging, pointing, bricklaying, and others—and also a number of small tools for particular jobs.

Amongst the sundries are several good tool kits and bags. Prominent is the Knopps collapsible bag, which carries the various tools in a commonsense way, which enables any necessary item to be seen at once. When folded it is convenient to handle and secure. An oblong waterproof canvas bag is known as the "Austral," which will take a complete kit of tools, and is built rigid.

All the necessary grinding wheels, stones, and sharpening devices are stocked, amongst these being the Universal brand, of which the company are distributors.

Hawkes Bros. Pty. Ltd., of Geelong and Melbourne, advise full supplies of all engineers' tools and tools of trade for all purposes. The firm keep always a comprehensive range of Starrett's engineers' appliances, which include squares of all descriptions, rules, gauges, speed indicators, calipers, and dividers. Brades' engineers' hammers are of proven value, but may always be had in the various patterns. Amongst other appliances for engineers, hand and breast drills are constantly in demand. The firm maintain complete stocks of well-known British, American and Continental types.

New shipments are constantly coming to hand of approved makes of wrenches for all uses. Drill bits are of all kinds—straight, bit stock, taper, or prentice—and a recent shipment included lathe and drill chucks, reamers, Stanffers' grease cups, and many popular patterns of oil cans and feeders.

A useful link belting, the "Rex," is deserving of mention. This line has proved most successful, and finds good demand. Amongst other requirements of the engineers' shop, carborundum and emery wheels should be noted. All grades and sizes are in stock; also sharpening stones of all kinds. A handy sized treadle grinder, of English make, is finding many patrons. It is fitted with two different emery wheels, and is compact and strong.

Every class of tool for carpenters' use is regularly stocked. Many patterns of saws are now opened from Disston, and also from English makers. Other tradesmen's goods include bricklayers' and plasterers' trowels, pointing and gauging trowels, levels and similar appliances.

J. S. Kidd & Co. Pty. Ltd., of 410-12 Lonsdale-street, Melbourne, advise the arrival of large shipments of English and American brands of artisans' tools. They include complete ranges of the various saws turned out by Spear & Jackson Ltd., and Henry Disston & Sons Inc. The firm find that an increasing demand continues for Spear & Jackson's lines, many users speaking highly of the quality of steel used by these makers.

Among the usual wood handled tools, the principal makers represented are Joseph Tyzack & Son and Ward & Payne. These firms, together with Mathiesons, are supplying reliable chisels and similar tools, and the different patterns from these people are always on hand. Alex. Mathieson & Sons Ltd. are still most popular with users of wood planes, and the firm have ample stocks of this brand of all kinds, including smoothing, jack, rabbet and beading types. The Stanley Works are the popular makers of iron planes, and in all the most used numbers their goods are accordingly carried. From the same American factory come gauges, T bevels, squares of all kinds, spokeshaves, and similar appliances. In mortise gauges and mitre boxes the Disston makes are also kept.

For engineers and metal workers sledge hammers are in various weights, in addition to ball pein napping and spalling hammers. The two last-named are available also in the popular Brades qualities. A range of spanners and wrenches is always to be found here: "Footprint" tools now cover a wide selection for all purposes. From the Millers Falls Co. comes a shipment of hand and breast drills, all designs, and another good make, the "Yankee," is also carried in stock. Reference should also be made to the file section of this department. The firm have arranged to keep on hand a complete selection of Nicholson's files of every cut and size. These are constantly asked for, and give good results.

McPherson's Pty. Ltd., of 554 and 582 Collins-street, Melbourne, stock very complete ranges of all tools for tradesmen. Carpenters' and woodworkers' appliances represent an important section. Of saws alone some dozens of different types are available. The leading lines by Disston and Spear & Jackson are perhaps most popular with users, and their various patterns are all here. In addition to these makes, several good types of Simmonds well-known goods are stocked, such as docking saws, for rough sawing, cross cut tooth circular saws, "Bay State" brand, and band saw blades.

Braces in English and American makes as well as popular German braces and bits, make a reliable assortment. An English ratchet brace, No. 116, has a 10 in. sweep, and is fitted with ball bearings in the grip, and also between the ratchet head and spindle. Barber's improved ratchet bit brace has many special features. Prominent makes of all the regular carpenters' tools are carried, including chisels, planes, hammers, levels, and rules of all kinds. The Stanley people show a wonderfully full range of planes for special purposes, having given much attention to this class of tool.

McPherson's catalogue, which is obtainable on request, illustrates a number of floor cramps for various kinds of work. A Speed floor cramp, F 691, is exceptionally useful. Its construction gives it great power. It grips on all joists from 1

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to 3½ in. thick, and is efficient also on bevelled joists projecting only 1 in. above concrete.

Of engineers' tools it might be said that every appliance of value known to the trade in all its branches may be procured here. One or two new ideas in this department are being shown, which appear to merit special mention. One is the "Unique" test indicator, for the turner and machine shop fitter. It is attached to a leg of a pair of calipers or dividers, and gives the operator a most sensitive reading of the width. It enables the user to detect a variation by thousandths. The cost is small, actually 3/6. The other appliance is a new Oster pipe vyce. This is an inclined side opening vyce with a range of ⅛ to 2 in. The design allows the pipe to be released by giving the handle only one or two turns. The grip is so positive that even 2½ in. galvanised pipe is securely held with one turn of the screw. For use out on the job a post chain and clamp may be had as an extra, and an eyebolt for bending the smaller sizes of pipe is another accessory.

McPherson's are now acting as distributors for Universal grinding wheels. Large stocks are due to arrive during the next few weeks. The firm also stock Norton wheels.

George Russell Pty. Ltd., of 452-60 Flinders-street, Melbourne, are now opening a shipment of Mathieson's tools for carpenters' and woodworkers' use. Amongst a comprehensive selection were noted all kinds of planes, gimblets, augers, countersunk bits, and a number of others. From the American firm of Peck, Stow & Wilcox there are a parcel of ratchet braces, comprising all numbers, and Stanley's make are also available in the same tools. The latter are also represented by a good assortment of mitre boxes, bevels, try squares, and similar lines. The choice in hand and breast drills is complete. The principal makers observed were the Goodell-Pratt Co., and the Millers Falls Co., both good types. Disston's and Spear & Jackson's saws may always be had from this firm, covering all needs of the trade. The files on hand include Nicholson's of various brands and the "Black Diamond" make. Wrenches and spanners are in the different patterns of "Footprint" brand, and the most wanted numbers of Stillson's and Westcott's are also kept.

For the needs of the plasterer and bricklayer a recent shipment from Brades and Disston comprises all the regular trowels, whether for tuck pointing, laying or plastering, with a good selection of these for special uses. Chesterman's tapes and metallic measures are stocked, and Rabone's rules of all kinds. Accessories for the workshop include a long list of grinders, prominent makes being the Champion 4, 5, and 6 in., and popular carborundum lines. There is also a range of both carborundum and Indian sharpening stones.

Eliza Tinsley Pty. Ltd., of 640-52 Bourke-street, Melbourne, carry full stocks of all leading makes of carpenters' and engineers' tools. They have just opened a large shipment of Stanley tools, including such well-known lines as Bailey planes, levels, mitre boxes, turnscrews and others. Amongst a comprehensive array of English appliances they are showing Spear & Jackson's saws in the most used patterns: hand saws from 20 to 28 in. in the different types; back saws and pruning saws. A range of Rabone's wood and steel rules comes in all kinds and for all purposes; also the same maker's steel and metallic tapes. Another recent importation includes prominent brands of axes, both English and American. Mathieson's auger bits are in all numbers, and Irwin's expansion bits. From such manufacturers as the Millers Falls Co., and Peck, Stow & Wilcox Co. ("Pexto") there are selections of carpenters' braces, as well as from Continental makers.

Amongst the engineers' tools the firm report considerable success with Hart's duplex stocks and dies, in Whitworth thread. Users appreciate the special construction of these appliances, which permits the work to be withdrawn without turning back. Hacksaw frames and blades are stocked in Millers Falls and "Milford" (Henry G. Thompson & Son Co.) brands. All types of plyers and spanners for electricians' and engineers' use may be had; these are by first-class English and European makers. The firm find that the twist drills as produced by the Cleveland Twist Drill Co. have given satisfaction, and constantly carry the various sizes and patterns of this company. Files and rasps are by the Nicholson File Co.

As sole agents for the Carborundum Co., Niagara Falls, U.S.A., this firm may be relied upon for every description of their grinding wheels. A very large stock is continually available in all sizes, grits, and grades. A grade is prepared by this company for every possible class of work.

Regaining Lost Customers.

One of the most costly features of modern business, and perhaps the most difficult to control, is the loss of "old" customers—customers whose business the firm has been enjoying over a period of time, and who for unknown reasons suddenly discontinue their patronage.

Various influences may have caused the breaking off of the account. Something an employee has said or done, intentionally or unintentionally, may have offended the customer. An imperfection of goods may have dissatisfied him and caused him to "try somebody else." Delayed delivery or indifferent service may have inspired the change. The activities of a competitor, possibly just opening a new store, may be the reason.

Whatever the cause of the loss of the customer, it is evident that the first thing toward regaining the account is to find out why he has left.

A method for accomplishing this purpose which appeals as being at once tactful and effective, is that used by a certain retail furniture concern, as follows.

On their regular monthly statement form, dated and addressed to the customer, they typewrite (in lieu of the monthly statement) the following:—

"We regret exceedingly to note that your statement is blank this month, and we are wondering if we may not serve you in some way.

"We trust that your past purchases from us have been entirely satisfactory in every way and assure you that your patronage is sincerely appreciated.

"Drop in and say 'Hello' occasionally. We will be glad to see you and to show you without obligation any furniture, rugs, stoves or crockery in which you may possibly be interested.

"This week on our main floor we are featuring a completely furnished living room exhibit which we cordially invite you to inspect."—"Doorways."

C. S. Norcross & Sons, of Bushnell, Ill., U.S.A., have appointed Mr. Harold R. Richardson, of 181 Clarence-street, Sydney, their agent for the Commonwealth of Australia, and Mr. M. Scott-Young, P.O. box 1295, Wellington, their agent for the Dominion of New Zealand. These arrangements are in place of the agency previously held by S. Scott-Young Ltd.

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Electrical Section

Notes from Melbourne

(By F.M.B., 66/207.)

With the first cold snap this month there was an unusually busy time among those who sell electric radiators. Practically every shop had a special window display. The "Hecla" fires "made in Australia" were well in evidence. For office use chiefly the makers (Hecla Electrics Pty. Ltd.) have devised the "Hecla" footwarmer, which is rather neat in appearance, and very economical in current consumption. The average radiator takes a good deal of current, the rating being from 600 watts upwards. A 600-watt radiator would not heat a very large room, and if there were several occupants it would not be very suitable. The footwarmer, however, takes only 80 watts, consequently for the same amount of current required for a radiator, seven or eight footwarmers could be used.

During the month it was announced that the service charge in districts controlled by the State Electricity Commission would be reduced. The minimum rate would be the only rate charged in each respective district in future. At present this charge varies according to the number of rooms. The more rooms, the higher the charge per room. Seemingly the commission now realises that it is hardly fair for the householder with 10 rooms to be asked to pay a higher rate than another with five rooms.

An estimate of the current used in May, or rather generated by the Electricity Commission, shows over 60 per cent. of an increase to last May. It is expected that the Yallourn station will be working to capacity this winter. Taking the position all round, the whole electrical industry is progressing rapidly.

Some hints for obtaining good service from radiators may be of assistance to retailers. Very similar to an electric iron, the radiator differs in that it radiates the heat outwards, whereas, with the iron, the heat is concentrated on the sole-plate. Faults, however, are very similar.

In the first place it is necessary to use a good heavy flexible lead. Most failures of radiators can be traced to a break in this flex, especially when the radiator is moved frequently from place to place. Flexible cord of 40/36 gauge should be used when the radiator is of 600 watts, or more.

Most important is the plug used. Many purchase a radiator fitted with the bayonet cap adaptor, and use it from a bayonet cap holder on their lighting circuit. Apart from being more expensive to run, the use of such an adaptor is not allowed for lamps of 150 watts or more, nor is it allowed for irons, kettles, or radiators. Considering that a radiator uses 600 watts, it is easily seen that if a 150-watt lamp is not to be used with a bayonet cap, a radiator should not be so used.

The main reason is that with bayonet cap holders the least sign of a loose connection will tend to cause an arcing of current. This generates heat, and in time the holder will become excessively hot. The cause is with the small spring under the two contacts, which becomes very weak if it gets even a little warm. A two-pin plug with a certain contact should be used for radiators. The abovementioned footwarmer would be quite suitable for use with a bayonet cap adaptor and holder, the current being only 80 watts.

Another fault may be the burning out of the "element." In most radiators now, the heating element is easily seen, and can be inspected quite readily. Others having their element out of reach should be taken to an electrician to be tested.

With proper care and attention, however, a radiator should give good service.

Notes from New Zealand

(Specially Contributed).

A loan of £10,000 to Otago Central Power Board for electrical works in the inner area has been sanctioned by the ratepayers.

To provide for the increasing demand for power, Hutt Valley Power Board will carry out additions to the Petone sub-station at a cost of £500.

Eyre County Council has instructed the returning officer to take a poll for the election of two representatives of the proposed North Canterbury Power Board.

Franklin Power Board has been advised by the Railway Department that the electrification of the station, etc., at Mercer will be proceeded with early in the new financial year.

Te Awamutu Power Board reports to date 1214 lighting installations, 404 cow plants, 54 other power plants, 78 water pump motors and 65 electric stoves, a total of 1815 connections. The board's inspector is kept busy.

Work will be commenced this year on a transmission line between Ngongotaha and Opotiki, a distance of sixty miles, for the purpose of connecting the Bay of Plenty Power Board district with the Government's Waikato electrical supply system.

Lyttleton Harbour Board has decided that the incoming board should investigate the advisability of getting dredging done by electrical power and pontoon, with the spoil carried to sea by fast lighters. If this were done, it would be unnecessary to purchase a new dredge.

Thames Valley Power Board's annual report gives the total number of consumers as 6361, which includes the boroughs of Thames and Te Aroha. There were now connected and operating 994 water heaters, 145 electric ranges, while the total number of motors on farms was 1876, of which 1614 were 2 h.p. milking motors.

A loan of £186,000 to New Plymouth Borough Council for extension to electric works and waterworks, also one of £36,000 to the South Canterbury Power Board for electric works in Mackenzie county, have been sanctioned by the ratepayers. Timaru Borough Council's loan of £5000 for the completion of certain electric works has been authorised.

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Wellington's change-over to the standard 230 voltage has shown highly satisfactory progress. Work is now proceeding in Karori, but operations in this suburb are being hampered by non-arrival of hardwood poles from Australia. When Karori is finished, change-over work will be carried on in Northland and Hataitai districts and in the city area.

The Nelson city electrical engineer recently submitted a report containing some important proposals concerning the setting up of a power board for the city and Waimea county, and increasing the city's generating plant to supply the additional power required. At Port Nelson additional plant will have to be installed ere long, and the engineer suggests a 1000 k.w. addition, which would supply the whole district.

The question was referred to a committee.

Grey Power Board report that for the month of April, 106 applicants for electric supply were received, making the total number to date 1026. During the month 200 new consumers were connected to the mains, bringing the total up to 939. This number includes Blackball with 120 consumers, and Rutherglen, Gladstone, and Paroa, with 38 consumers. The total connected load to date is as follows: Lighting, 358 k.w.; Power, 1270 h.p.; Heating and Irons, 370 k.w.; Water Heaters, 9 k.w.; Ranges, 19 k.w.

A Government contract for the supply of galvanised steel towers for the 110,000 volt transmission line between Waikaremoana power station and Napier has been let to Dansey & Co. Ltd., the price being £28,352.

The line, 60 miles in length, will be ready for service by the time the generating station is completed, which, it is anticipated, will be early in 1929, and will then serve to link up the Waikaremoana supply with the Mangahao hydro-electric system. Two power circuits will be carried by the towers, thus providing for duplicate supply.

The annual report of Horowhenua Power Board shows a healthy condition of affairs. The total income for the year was £37,581, and the expenditure £31,525, showing a net profit of £6055.

During the year the sales of electricity exceeded the estimate, but the board had a large loan expenditure in reticulation. As showing the remarkable growth of business, the board originally contracted to take £5200 worth of electricity from the Government, but during the year it actually purchased over £14,000 worth.

A reduction in charges was suggested at the annual meeting, and a committee was set up to investigate and report.

Southland Power Board has purchased the Gore borough reticulation and control of electric supply in the borough was taken over as from April 1. The agreement provides for the purchase of the electrical installation with the exception of the pumping plant, street lighting mains and powerhouse, these being valued at £3000.

The price payable is approximately £18,200. In the terms of the agreement, provision is made for the supply of all current required by the borough for street lighting and pumping, or other municipal services, at 1d. per unit. The board guarantees to supply Gore with power up to 600 k.w., which is treble the present load. A sliding scale of charges to be made by the board is part of the agreement.

Central Power Board (Hamilton) has made a proposal to the Tariff Revision Commission that the duty on British-made electrical appliances should be removed, while that on foreign-made articles should be reduced. The board pointed out that, although it had reduced its price for heating and cooking to 1½d. a unit, a reduction in the price of domestic electrical appliances, especially ranges, would very considerably assist in building up a more satisfactory demand for current.

In common with other power boards, the board had spent a large sum in reticulating its district, and unlike some others it believed that a reduction in the price of domestic appliances would do more to promote the larger use of electricity than any advertising campaign.

Southland Power Board's annual report shows that last year's revenue from the sale of electricity exceeded that of the previous year by over 90 per cent. At the beginning of the financial year the amount owing to the board by consumers who had received financial assistance towards carrying out electrical installations was £112,284; but by the end of the year the amount had been reduced to £70,583. From 5045 the number of consumers increased during the year to 6690.

An average taken on the monthly bills shows: for lighting, heating and small power, 8/8; for cooking, 21/5; for water heating, 7/7; for milking motors, 24/10. During the year 392 entirely new installations were wired and tested, while 772 extensions were made to old installations. Many of these extensions were electric ranges, of which a total of 292 were connected. Altogether 845 ranges are now connected, with 511 water heaters and 1408 motors.

The Canterbury Progress League has been very active advocating the adoption, for Christchurch and the province, of an electric power scheme which will supplement the present supply from the Lake Coleridge generating station. Figures based on the rate at which the demand for power is growing, show that by 1930 the extent of the load will cause a shortage in electric supply.

To promote a full discussion of the position by the power supply authorities of the city, and province, the League called a conference, which was held in Christchurch, on May 19. The attendance was highly satisfactory, nearly every power board and other supply authority in the province of Canterbury being represented.

Mr. F. T. M. Kissel, chief electrical engineer to the Government, was present, and spoke at length on the Government's proposals. By 1940, he said, the demand for the Canterbury province would be something like 65,000 k.w., or 38,000 more than the present capacity of Lake Coleridge. The likely sources of supply were the Waimakariri, Rakaia, and Waitaki rivers, the latter including Lakes Tekapo, Pukaki and Ohau. The Waitaki appeared the most promising source of power. Beginning with two units of 15,000 k.w. each, the capacity of the station would be extended ultimately to 75,000 k.w. The estimated cost of the development was about £27 per h.p. for 40,000 h.p., coming down to £23 for the ultimate output. As against these the Waimakariri figures were £40 for 20,000 h.p. to £30 for 30,000 h.p.

A lengthy discussion followed, and ultimately the following motion was passed:—

This conference approves of Mr. Kissel's estimates of future power requirements, and adopts the proposal of the Public Works Department to settle on the Waitaki scheme as the next South Island development, and urges the early commencement of the work.

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Advertisers will kindly note that all alterations to Advertisements should reach us by the 25th of the preceding month.

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A Blotter Calendar.

Running from July, 1927, to June, 1928, a calendar issued by Mr. W. A. Hamer, who prints this journal, has come into our hands just in time to replace an earlier issue which has been in constant use during the past twelve months. The size of the sheet is about 12 x 10½, and as the calendar proper fills most of this, the figures are large enough to be easily read even at a distance. These monthly slips are printed on blotting paper, and when the month runs out and the perforated sheet is torn away, it may be folded over and used for blotting purposes. Thus on his desk as over his desk the user is not allowed to forget that Mr. Hamer does good printing.

The Cash Order System.

Melbourne traders are becoming apprehensive at the growth of the cash order system as it is called. And no wonder. The wonder is that traders anywhere have allowed such a questionable growth to take root. If they did not patronise the thing it would never raise its head in any market.

By the cash order system is meant a system whereby people are enabled to buy goods for which they cannot pay at the time and without seeking credit from the supplier. This is possible through the agency of a third party, a cash order company, who supply such customers with orders on certain dealers. These dealers, it will be understood, stock the required goods or offer the required services and are prepared under arrangement to honour the orders of the company concerned. The company make their profit from both parties—from the customer in the shape of interest, and from the dealer in the shape of discount, a special concession on regular prices. In interest the rate charged is not easily determined for the amount advanced is repayable in fixed sums spread over so many weeks. The terms look reasonable, but examined by an accountant they are found to be pretty stiff—1/- per £1 by way of "interest" when the order is given and 1/- per £1 weekly thereafter for twenty weeks. In discount the amount pocketed varies with different companies and different classes of goods or services, but on regular shop lines it is said to mean 12½ per cent. of the value. From the obliged customer apparently 13 per cent. per annum, but really a good deal more, and from the obliging dealer anything from 5 to 15 per cent. on each transaction. No wonder the companies prosper!

"It is the unanimous opinion of this committee that every effort should be made to abolish cash orders, and the committee will co-operate in any way possible to attain this end." So runs a resolution passed by the committees of several trade associations in Victoria. They are finding the system hurtful to trade and traders, and some of those who recognise the cash orders are sorry they have had to do so under the pressure of competition. In practice the system encourages waste and extravagance. Were such orders confined to articles which would enrich the home permanently some excuse might be found for them, but they are being used increasingly for the purchase of necessaries. Money is spent before it is earned and a false prosperity blinds the eyes of the unthinking. Comes illness or loss of employment with payments unmet and there is a seizure of articles and an issue of summonses. The police complain that their time is too largely occupied in serving distress warrants.

Years ago the Victorian Parliament was moved to suppress the coupon company system and this cash order system ought to share the same fate. Both come between buyer and seller without rendering any real service to either, and both should have the door closed in their faces. Their intrusion ought not to be tolerated.

Foreign Exchanges.

Foreign rates of exchange in London for cable transfer on the centres and dates indicated, compare as follows:—

Par.	—	—	June 23	June 27	June 30	July 4
4.886	New York	Dols. to £	4.85⅝	4.85⅝	4.85⅝	4.85⅝
4.866	Montreal ..	Dols. to £	4.85 31/32	4.63/4	4.86 1/16	4.86 1/16
25.225	Paris	Frcs. to £	124.00	124.00	124.00	124.00
35.000	Brussels ..	Bels. to £	34.96	34.96	34.95	34.94
25.225	Rome	Lire to £	84.45	83.43	87.88	87.95
12.107	Amsterdam	Florin to £	12.11 7/8	12.12 1/4	12.12 1/4	12.11 7/8
12.107	Batavia ..	Gul. to £	12.12	12.11 7/8	12.12 7/8	12.12
18.159	Stockholm	Kron. to £	18.12	18.12	18.12	18.13
18.159	Oslo	Kron. to £	18.73	18.76	18.79	18.79
18.159	Copenhagen	Kron. to £	18.17	18.17	18.17	18.17
20.43	Berlin	Gmks. to £	20.49	20.49	20.49	20.49
24	Calcutta ..	Pen to rup.	17 5/9	17 31/32	17 29/32	17 7/8
24.58	Yokohama	Pen. to yen	23⅜	23 3/4	23 1/16	23 7/16
*	Hongkong	Pen to dol.	24⅜	24¼	24¼	24⅜

* Par depends on rise and fall in price of Silver.

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Editorial

Federal Finance

Satisfaction will be generally felt that the financial proposals put forward by the Prime Minister of Australia (Mr. S. M. Bruce) have been accepted in principle by the representatives of the different States, and that a workable arrangement is practically assured. To take over from the beginning of July, 1929, existing State debts and control future borrowings are the main features of this bold scheme. The debts to be assumed are those contracted by the State Governments themselves and by certain large spending departments for which these Governments are directly responsible. In lieu of the per capita payments the Federal Government will apply £7,584,912 annually from its revenues towards meeting the interest charges on this body of debt, and the different States will make up the balance. Properly safeguarded sinking funds will be established for the redemption of present and future debts. The levy in respect of present debts is 7/6 per cent. per annum, of which the States are to pay 5/- and the Commonwealth 2/6. This is to continue for fifty-eight years when all such debts will be extinguished. For new loans the sinking fund is to be on the basis of 10/- per cent. per annum, such sum to be provided equally by the Commonwealth and the State concerned, and to have a currency of fifty-three years for each separate loan.

An Australian Loan Council is to be created for the management of present debts and future borrowings. On this council the Commonwealth and each of the States will be directly represented, and to this council the Commonwealth and each of the States will submit their respective loan programmes for ratification. Subject to the control of the council the Commonwealth will arrange all future borrowings, including conversions, redemptions and the funding or consolidation of debts. The scheme has yet to receive the approval of the State Cabinets and Parliaments and an amendment of the Federal constitution will be necessary to inaugurate the proposed council and give the proposals legal authority. But the interval between July 1, 1927, and June 30, 1929, is to be covered by a temporary arrangement securing similar ends—the joint handling of loans and the provision of a sinking fund for loan redemption. The various States will agree, that is to say, to surrender their debts to the Commonwealth, pay to the Commonwealth their portion of the interest on such debts, plus the sum agreed upon for redeeming present indebtedness, and only add to the burden through the Commonwealth under direction of a joint council.

Already tried in measure—one of the States stood out—this co-ordination of future borrowing should prove a decided advantage. The Commonwealth will become the sole borrower and the individual States will obtain their requirements through that channel without themselves entering the money market. It is true the loan council may not refuse or even restrict the borrowing impulses of any State, not directly. But indirectly it may and should be able to exercise a healthy restraint. The budgets both of Commonwealth and State requirements will be carefully and critically scanned and the very fact that such censors have to be faced should have a moderating influence and check anything like prodigality. The chief business of the loan committee is to keep in touch with money markets and determine times and conditions of loan flotations, but as already stated we believe its efforts and influence will not end there. It should mean much in years to come. Quite as welcome is the provision of a sinking fund for the extinction of public debts. This is not to be left to chance or good seasons or personal predilection, but placed upon a definite basis, a fixed amount becoming obligatory every year whoever may be the treasurer or whatever the state of the treasury. Every prudent man throughout the Commonwealth ought to hail with satisfaction this business-like proposal. It will show that the people of Australia are determined to stand up to their monetary obligations. In London, as we learn by cablegram, the proposals have been well received. The press is agreed that if given effect they will improve Australian credit at the seat of Empire, whence most of our borrowed money is drawn. Thus "The Daily Chronicle" in welcoming co-ordination says its absence is dangerous both to the Australian taxpayer and the British investor. "The Financial Times" says, "There is no doubt that the scheme will ensure for the States better terms in the money market, enhance credit and mean greater security for the borrower." And "The Financial News"—"The three-eighths per cent. allocated to a common sinking fund will be offset, in time more than offset, by the average saving in the rate of interest. A plan of this kind is a genuine essay in statesmanship. It embodies large and long views, and without encroachment on any real right of the States it is in principle honest and sound."

Questionable Standards

As a writer Mr. Edward W. Bok is always interesting. The story of his "Americanisation" which has run into many editions showed how a boy of Dutch birth carried across the Atlantic became a devoted citizen of the great republic. One of his

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latest books, "Dollars Only," equally vivid and arrestive in language, also casts light upon American life as it is lived to-day.

In the year 1919, at the age of fifty-six, Mr. Bok relinquished the editorship of "The Ladies' Home Journal," of which he had made a great success and from which he had evidently derived a competence. Since then he has been devoting himself to honorary work of one kind or another and incidentally writing articles and books. "Dollars Only" is a plea for the attitude to "business" which he himself adopted. When a man has made a modest fortune, enough for personal and family wants on a reasonable scale, he ought to be ready to let go and that for two reasons. For one thing he will be giving another and younger man a chance, and for another thing he will be giving himself a chance to render service to others, and so enrich his own life. This is Mr. Bok's argument. The pursuit of "dollars only" is deadening and damning, and the world is realising it more and more. Mr. Bok gives instance after instance of the extent to which this better view of life is influencing successful Americans. Always present in some, a sense of public service has seized many as an outcome of the recent war. Name after name is given of men who having made enough to live on have retired from business, some of them in middle life, in order to devote themselves to some form of public service, or who having made much money have ceased making more and are spending part of what they have acquired for the benefit of others. In city after city, Mr. Bok cites cases of this kind, some of them really remarkable cases. The practice is growing, he avers; the feeling that this is what they owe to themselves and to the community which has enriched them is coming home to an increasing number of successful business men. Not only so, but the sons and daughters of such men, youths with college training, many of them, are becoming critical or ashamed of the money-grubbing habit and beginning to ask, "What else did father do?"

All this is healthy and commendable, and with much of what Mr. Bok says no one will have any quarrel. But we are rather surprised that an American especially should distinguish to the extent he does between paid and honorary work. While admitting that in ordinary business and without retiring from it a man may serve his fellows he lays down this proposition without a qualifying word, "When a man works at a compensated job, he works for himself. When he works at a job for which there is no compensation, he works for others." A man is to be judged, according to this author, by the amount of such honorary or "uncompensated" work which he does. Uncompensated in money, that is to say, for Mr. Bok maintains that such men find a greater pleasure in "service" than they ever found in "business." They experience more joy in altruistic disbursement than they ever experienced in selfish acquisition. "They have their reward" although not in coin of the realm. If the principle thus laid down is sound it seems to follow that the occupant of the White House is working for himself, while the prisoner at Sing Sing—to quote an extreme case—is working for other people, and that the work of the latter is the more meritorious. Mr. Bok would repudiate any such idea, but that, we respectfully suggest, is the logical implication of his statement as it stands. This distinction of his between paid and unpaid service seems to us arbitrary and mischievous, as arbitrary as the medieval over-strung distinction between sacred and secular. A truer principle, as we think, was furnished some years ago by a former Chief Justice of Victoria. Speaking of a deceased brother judge who had not been long on the bench when he died, the speaker said a man's life was not to be measured by the nature of his work nor by the number of years he gave to it, but by the spirit in which it was done. And of a certain Roman Emperor was it not said that he wielded the power of a sovereign in the spirit of a slave? Surely the spirit of service may animate men of business all along the way—an American should be the last to say otherwise. Let them retire as soon as possible by all means—some among us as in America have the courage to do so—but retirement is not imperative and in some cases may not be advisable. If the service of self in incompatible with the service of others the position of the large body of men who cannot afford to retire is hopeless. But this we deny.

Nor should it be forgotten that "honorary" work has its risks and dangers as well as "paid" work. Unless wisely applied, it may do more harm than good. If it saps the independence of any person or body of persons, or interferes with self-endeavour, it is not a thing to be commended. This is specially true of the giving of money. Indiscriminate "charity" stands condemned the world over. It pauperises people. Self-respect is invaded and with it self-reliance—a virtue calling for every encouragement. Those who ought to know say that in some cases or directions, at least, the distribution of the Carnegie dollars has proved a doubtful blessing. There are causes, no doubt, into which a man may put his money with nothing but benefit to others as well as to himself. If he can give himself to such a cause as well as his money so much the better. But not every man will make a wise choice.

Sawing Wood.

A sawyer ordered a new saw. When it arrived he tested it and found it worked excellently.

"Well," he remarked, "of all the saws I ever saw saw I never saw a saw saw as this saw saws."

Reminds one of the tramp who approached the lady of the house for a little assistance. "You saw that pile of wood as you came up the yard," said the latter. "Yes, ma'am," replied the applicant, "you saw me see it, but you didn't see me saw it." No, nor ever will!

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The Morality of Business.

For the first of a series of three lectures arranged by the Christchurch Hardware Merchants' Association, New Zealand, Mr. L. L. Cordery was the lecturer, and his subject, "The Morality of Business." The lecture was given at the Chamber of Commerce Hall on the evening of June 18, when Mr. G. W. Drayton presided over an attendance of men that fairly filled the hall.

Mr. Cordery began with a reference to the inspiration of a belief in the Omnipotent, and illustrated his observations by quotations from Bacon, Emerson, Shakespeare, and Omar Khayyam, urged on his hearers the value of striving after an ideal, and the necessity of honesty for real success in business. Honesty was always the best policy. A man who did not give twenty shillings' worth of work for the pound he received from his employers was, like the employer who paid £3 for £4 worth of work, as bad as a thief, and, worse than a thief, was a liar. Qualities of mind had their effect on a man's conduct in business, and a young man should constantly endeavour to prove himself. In recommending a study of good literature, the speaker said young men should read the Bible and the noble passages of Shakespeare. Their reading need not be all heavy—some of the lighter novels had their value.

Musical numbers were given during the evening, and a discussion followed Mr. Cordery's address. The hope was expressed that it should be printed in full for trade distribution.

Specially intended to assist the younger men, the lectures are in the nature of an experiment. The next on September 17 is on "The Educational Responsibility of Employers," by Professor Shelley, while the third and last on December 10 is on "The Relationship Between Employer and Employee," by Mr. W. Machin.

Prospects of Western Australia.

From the annual report of the Australian Mutual Provident Society we take the following references to Western Australia:—

"Western Australia is going ahead by leaps and bounds. An air of prosperity and activity characterises the whole atmosphere of the State, large buildings being erected in every portion, and extensive alterations are being made on all sides. Railway development is proceeding apace; main roads are being constructed to every important centre, and old ones improved, and, generally speaking, the State is in an excellent position.

"A further 30,000,000 acres of land is available to be thrown open for selection, and when it is remembered that the wheat production of the State for 1925-1926 exceeded thirty million bushels, the future in this connection appears very bright, and the State may be looked upon in a few years to lead the Commonwealth in the wheat yield.

"The wool clip exceeded all previous records, and this is increasing very rapidly each year, there being no less than 7,000,000 sheep in the State at the last registration.

"Although the Mining Industry is slowly declining, it is not anticipated that at the present rate the production of gold will cease for many years to come. There is a very firm opinion among the leading mining experts that the huge low grade propositions now being exploited will develop satisfactorily, and restore the industry to its former important position. Our large manganese deposits are also receiving attention, and it is confidently expected that the export will start in a few months on a large scale. It is encouraging, also, to note that all the areas surrounding the goldfields are being taken up as pastoral areas, and thousands of sheep are now grazing on lands which at one time were considered altogether unsuitable for that purpose."

Inquiry Column

TRADE INQUIRIES

During the month we have supplied answers to the inquiries indicated below. Firms with whom we have not already communicated who hold any agency connection with the firms, or handle any of the lines mentioned in this section, are invited to furnish us with particulars so that our lists may be complete.

Information Wanted.

J. H. Butler Ltd., Wolverhampton.—Name and address of agent wanted.

"Equatemp" Roofing Material.—Name and address of agent wanted.

"Planet Junior" Garden Tools.—Name and address of agent wanted.

Scottish Iron & Steel Co. Ltd., Glasgow.—Name and address of agent wanted.

"Vulcan" Gas Stove (Australian made).—Name and address of manufacturers wanted.

Philadelphia Lawn Mower Co., Philadelphia, Pa., U.S.A.—Name and address of agent wanted.

Jacobsen Mfg. Co., Racine, Wis., U.S.A., (motor lawn mowers). — Name and address of agents wanted.

Information Supplied.

Boisselot Freres.—Address supplied.

Fr. Edward Engels & Co.—Address supplied.

The Vulcan Metal Works Ltd.—Address supplied.

U.S.L. Batteries. — Name and address of agents supplied.

Bulpitt & Sons Ltd., Birmingham.—Name and address of agent supplied.

W. Canning & Co. Ltd., Birmingham.—Name and address of agents supplied.

Glover's Rabbit Traps.—Name and address of Tasmanian agents supplied.

Holt & Willetts, Cradley Heath, England.—Name and address of agents supplied.

Steel Fencing Posts, T shape.—Name and address of agents holding stocks supplied.

Swivel Wheels for Trucks.—Name and address of Melbourne manufacturers supplied .

Fayette R. Plumb Inc., Philadelphia, Pa., U.S.A. (axes, etc.).—Name and address of agent supplied.

T. & C. Clark & Co., Wolverhampton, England (hollowware, etc.)—Name and address of agent supplied.

Browning Guns and Rifles (Fabrique Nationale d'Armes de Guerre, Belgium).—Name and address of agents supplied.

LEGAL INQUIRIES

Registration of Firms.

John Brown and Harry Robinson contemplate opening business in partnership. The Registration of Firms Act prevents them doing so under the name "Brown & Co." without being registered. If they assume the name "Brown & Robinson," the real surnames of both partners, would they have to register?

A.—Yes. A firm must be registered unless the firm-name consists of the full names of the partners, e.g., "John Brown & Harry Robinson."

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Sundry Credits

By J. Knibb.

Sent to Coventry.

Although Coventry is an English town, the centre there of the motor car industry, the phrase "sent to Coventry" must be more or less familiar to Australian ears. It means something unpleasant, like being sent to gaol. But how did it originate? As far as appears, it had nothing to do with imprisonment. The grim "Tower" was, and is, in London. "Of the many guesses at its origin, the one which is probably as near the truth as any, is that in the Middle Ages the strict regulation of its morals led the soldiers to shun this strongly fortified city, and to be sent there to form part of its garrison meant for them a very dull time." From the ethical standpoint, that is to say, it was a compliment rather than a criticism.

* * * *

A Matter of Definition.

In one of our daily papers a correspondent expresses his aggrieved surprise that a "British Trade Exhibition" held in Australia should be limited to goods made in the British Isles. "An Australian-born is none the less a Britisher: why are not his goods British?" It sets one thinking. Take, for example, the people of Quebec. Racially they are French, religiously, Roman Catholic; territorially, Canadian or American; politically, British. What of the things these French-Canadians make? How shall we designate the work of their hands? The dictionary defines British as "pertaining to Great Britain, the United Kingdom, or the British Empire." In other words the term is elastic. It may cover less or more—the British islands in the North Sea, without Ireland, or these same islands with Ireland and a great deal more.

* * * *

Free and Equal.

"Here's Ireland" is the title of an interesting book by Harold Speakman, an American, who travelled all over the "green island," much of the way on foot with a donkey-cart for his companion and equipage. Speaking of old troubles between England and Ireland, he maintains that all such troubles are due to the prejudiced history books and newspapers of the different countries. But he is fair-minded enough to admit that the same sort of thing obtains in his own land. "America? Oh, yes, it is like that in America too. There have been history books enough from the American point of view, and millions of freckle-faced little lads standing up and misquoting from the preamble of our Constitution. 'All men are born free 'n equal,' when any one of their fathers who does any thinking for himself knows that that phrase is biologically, ethically, and economically false."

* * * *

Sex Susceptibilities

A recent amendment of the Factories and Shops Act in New South Wales lays down in black and white the weight which young persons and women may be asked to lift or carry by hand. For females generally the maximum is 35 lb., for girls under 18 years of age 25 lb., and for girls under 16 years 20 lb. No limit is fixed for the adult male, but the corresponding maxima for boys are 40 lb. and 30 lb. respectively. The distinction is interesting, the figures suggestive. If a girl under eighteen in any store lifts a 28 lb. weight on to the scale, her employer exposes himself to pains and penalties. He has broken the law, or allowed it to be broken. Yet New South Wales holds hundreds of hefty girls not yet eighteen who, at the "gym." and elsewhere, lift much more than 28 lb., and are none the worse for it, but all the better. Then take the other sex. Before we were eighteen some of us were lifting 56 lb. weights in the right hand "as easy as winking."

* * * *

Knowledge Comes but Wisdom Lingers.

Henry Ward Beecher has been quoted as saying that wisdom only comes to a man after sixty years of age. A welcome utterance, truly, for those of us who are "getting on." But we must not presume upon the pardonable overstatement of a serene old man. For an overstatement it is. Age does not necessarily make a man wise, nor does youth necessarily find or leave a man foolish. Of the Bourbon kings it was said that they learnt nothing and forgot nothing, a contradictory statement which is yet understandable. We all know elderly men who are anything but wise. And we all know, or may know, men possessed of wisdom beyond their years. Some of the wisest men the world has known never reached old age. They died young, leaving a record for sagacity which the old may well envy without being able to emulate. Of living examples of early wisdom—practical wisdom—take Lawrence of Arabia, whose fascinating story no one should fail to read.

* * * *

Slovenly Speech—

The Duke did it. No, H.R.H. the Duke of York did not use slovenly speech. Far from it. But the King's son's correct use of the King's English sent a certain newspaper after other men's sons (and daughters) who do not use it correctly. Unnamed public men have been arraigned, unnamed professors and teachers flagellated, and "shocking examples" held up to derision by the King's lieges. Clipping and slurring on the one hand—so runs the indictment—and on the other a leaning to long words and American idioms. We do not grow, but "develop"; we do not give, but "donate." The "g" is cut from the end of certain words, and an "r" added to certain others—idea, and law, and so on. All true, more's the pity. Makes one think of his lingual offences. Behind the counter, as on the printed page, we ought to be King's men, we people of Australia and New Zealand. So largely of British origin, we ought to realise that in the "mother tongue," this flexible speech of our fathers, we have a noble heritage.

* * * *

—and Sloppy Writing.

Doubless, the spoken word is more open to abuse than the written word. But the latter also reveals various faults, sometimes in unexpected places. A former "chief" once pulled me up for saying on paper, "We wrote you . . . . . ." He obliged me to make it "We wrote to you," and he was quite right. Take this sentence from a trade paper. "You cannot sell every customer, and not always is it your fault that you fail to make a sale." That sentence has three blemishes. In the first place, none of us sell customers; we sell to them. Only in the language of slang can I "sell" a fellow-creature, and that means to defraud him. In the second place, if a person leaves the shop without buying goods, I do not think he can be called a customer. I must sell to him before he merits that title. And in the third place, the "fail to make a sale" is offensive to the ear. Some better form of words should have been chosen. Let us reconstruct: "You cannot sell to every person who enters the shop, and not always is it your fault that no sale is made."

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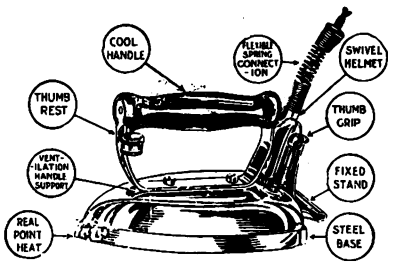
Novelties and New Samples

Chamois Leathers and Gloves.

Frederick R. Baker Pty. Ltd., agents for W. J. Turney & Co. Ltd., of Stourbridge, England, have at their showrooms in Melbourne and Sydney samples of manufacturers' various chamois leathers and chamois gloves. Turney's lines have become favourably known in Australia and New Zealand, especially on account of the reliable method of grading adopted at their factory.

Electric Iron.

The "Komet" electric iron, for which Jacka, Edmonds & Co. Pty. Ltd., of Briscoe-lane, off 397 Little



Collins-street, Melbourne, are agents, is now supplied with an earth socket. This obviates the possibility of receiving a shock if the user is standing on a damp floor. Another feature is that the handle support is slightly raised from the body of the iron to permit the air to pass through. By this means the handle is kept cool.

The "Komet" is a British-made appliance, and is guaranteed by the makers for five years.

New Axle Pulley and Aluminium Articles.

T. & C. Clark & Co. Ltd., of Wolverhampton, are now manufacturing a new cast iron, solid axle pulley. Amongst the special features of this article the makers explain that a change of design has been introduced. Instead of the cone type of axle, as in the usual secret axle pulley, a square axle has been used, giving greater strength, and obviating any risk of the pulling out of the sheave.

From the same makers samples are shortly arriving of aluminium steamers, and hot-water bottles of the same material. Aluminium hot-water bottles are now winning their way into public favour. They are obviously long-wearing, and are said to retain the heat far longer than other types of hot-water bottles.

Improved Bench Vyce.

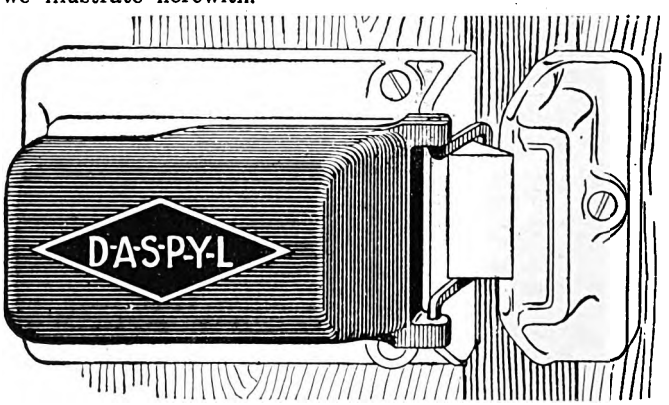
Richardson, Orr & Co., of 215 Clarence-street, Sydney, and elsewhere, are introducing on behalf of one of their principals, the Charles Parker Co. Inc., New York, an improved bench vyce set upon a swivel base. It can therefore be swung to any desired angle to suit the job in hand. By tightening up a wedge with the small side hand bolt, a strong steel spring is expanded against the side wheels of the base, effecting a powerful grip which ensures perfect rigidity at whatever position the vyce is placed. Another innovation is the setting of a tension spring in the end of the screw bar, which presses against the drop handle so that it "stays put" in whatever position it is operated instead of sliding down at every turn usual to vyce handles of this type. A solid steel bar cast full length into the slide is yet another feature of this tool, and gives an extraordinary strain resistance. The steel jaws, too, are notable for their fine even milling, but more particularly that each jaw is secured by two pins at the head, allowing removal if necessary, and it is virtually impossible for them to work loose.

Chrome Vanadium Steel Wrenches.

Mr. C. E. Mayo, of 209a Castlereagh-street, Sydney, is displaying on behalf of the Bonney Forge & Tool Works, Allentown, Pa., U.S.A., samples of that firm's C.V. or chrome vanadium wrenches. In order that these alloy steel wrenches may be readily differentiated, the manufacturers have adopted a finish which is slightly at variance with other similar shapes—white nickel body with buffed heads, orange and black decalcomania on one side of the body and C.V., also the words "Chrome Vanadium" (reg. Aug. 11, 1925) on the reverse side of the body. Single head and double head in either straight or curved bases, they are solidly constructed and are guaranteed to strip the thread of any U.S.S. or S.A.E. nut or break the bolt before the jaws will spread. The tappet variety for car work is 8 in. in length, allowing one to work clear of the motor when it is hot (the only time for adjusting), and the angle of the heads allows the reaching around into inaccessible positions. As most cars require three wrenches to make complete tappet adjustment, these wrenches are designed so that two can be worked like scissors with the one hand while the third is used in the other hand. This is accomplished by having two openings both the same size but at different angles on each wrench. One opening is straight, the other at 22½ degrees. Obtainable in sets packed in three ways, viz., cardboard box, in leatherette roll, and in metal container, they can also be supplied singly.

Lock Protector.

John Danks & Son Pty. Ltd., of Melbourne, are making a useful protector for night latches, which we illustrate herewith.



The practice of entering a house by inserting a hand through the lead-light and simply turning the latch knob, is still prevalent. The "Daspyl" protector, as it is called, clamps firmly over the lock inside the door, and effectually prevents the thief from operating the knob.

Electric Kettle.

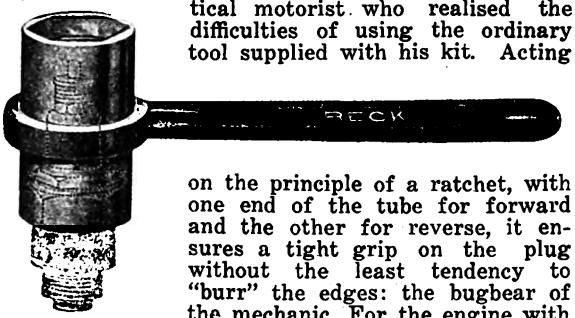
Hydro Press Co. Pty. Ltd. of 146-64 Burnley-street, Richmond, are manufacturing an aluminium electric kettle with a safety "cut out" to obviate damage through overheating. This safety is obtained by the addition of a fusible plug, which can be easily replaced in the event of its burning out. A spare plug is supplied with each kettle. The company have arranged for service in every State to ensure the satisfaction of users. Kettles carry a twelve months' guarantee against electric defects, and no expense will be entailed by the purchaser. Other electrical goods will also be put into production shortly.

Bleckmann Tools.

As Australian agents for J. E. Bleckmann, of Solingen, Grotjan & Co., 3 Hosier-lane, Melbourne, have recently landed a number of new lines which should prove of interest to the trade.

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These include the "Reck" sparking plug spanner, an illustration of which appears herein. This is an ingenious invention, obviously designed by a practical motorist who realised the difficulties of using the ordinary tool supplied with his kit. Acting



on the principle of a ratchet, with one end of the tube for forward and the other for reverse, it ensures a tight grip on the plug without the least tendency to "burr" the edges: the bugbear of the mechanic. For the engine with high water jackets it should be particularly valuable, as it gives quick and easy access to the fitting, and enables the user to speedily remove the plugs without injuring the hand or covering it with oil.

Enamelled Ware and Brassfoundry.

Through their representatives, Walter A. Cox Ltd., of 195 Clarence-street, Sydney, the Welsh Tinplate and Metal Stamping Co. Ltd. have, as it were, answered the competition of German manufacturers by the introduction of a new colour enamel in stewpans, kettles and other fire goods. Known as pearl-pearl, it closely approximates a rich steel tone and, although lower in price, has quite a superior appearance to lines of mottled grey, blue and brown seen elsewhere. Finished with neat black rim and black tubular handle, each pan is labelled "fireproof," as are also the kettles, which are seamless drawn and fitted with seamless, weldless spout.

From Smith & Davis Ltd., brassfounders, Birmingham, the Sydney agents have lately received a new range of samples representing every line listed in their latest catalogue. In the plumber's section, cistern chain pulls are furnished with non-breakable composition handles in place of china as formerly. This material affects a rather improved appearance, being produced in plain colours and marble effects highly finished. In the same section is a patent non-splash fitting expressly adaptable to household taps; it is self-adjusting by merely turning the milled screw top to ensure a firm grip.

Among a host of furnishing or household lines is a patent door stop comprising a ball-shaped rubber buffer fitted into a metal shell with flange to take three screws for attaching to the floor. The design and construction are such as to withstand heavy shocks without direct pressure upon the screws. They are obtainable in various colours to harmonise with carpets.

Of special interest to the trade is the supply gratis, with orders for household lines, of a strong neat counter display tray divided into sections to carry a liberal number of different fittings, such assortments being provided to suit individual classes of trade. Attached to the tray is a well-designed board illustrating several practical suggestions in the application of certain fittings, samples of which are also ranged upon the board. As a silent salesman this is one of the best that we have seen for some years past. A separate three-fold showcard for counter and window display is also available to customers. The design is particularly attractive and practical from the fact that it bears some two dozens or more specimen fittings and has a central picture showing the manner of using special fittings in home renovations.

A device which should appeal to retail stores is an outfit for make-up name plates, consisting of several different-size brass frames finished oxidised copper with which are supplied letters, numbers, stops and blanks for the immediate composition and supply over the counter of any name plate required. With the advantage of prompt service, equal durability and appearance and lower cost than the singly-ordered metal name plate, an effect upon the latter class of trade might reasonably be expected. The line is supplied in complete outfits contained in strong wooden boxes with divisions for each item, and screws for attaching the plates.

An innovation is the supply of brass barrel bolts, of all sizes and finishes, each packed separately in a strong envelope complete with the necessary screws. The saving of time in service and obviating stocks of screws in large variety will doubtless be readily appreciated.

From the Swedish Anchor Co. Ltd., Eskilstuna, Sweden, the firm have received a complete range of high-grade pliers of super quality produced from Swedish charcoal steel. The collections comprise tools for engineers, artisans, and electricians, and are made for workmen whose first consideration is service.

Travellers

In New Zealand.

Mr. S. C. Maxwell, of Colin Maxwell & Co., 204 Clarence-street, Sydney, left for New Zealand on June 3, accompanied by Mr. W. Ahrem, a son of Mr. Ewald Ahrem, whom the firm represent. Leaving Mr. Ahrem in the Dominion, Mr. Maxwell expects to return to Sydney on July 15.

In South Australia.

Mr. C. Deutgen, of Grotjan & Co., Melbourne, will be in Adelaide in August with a complete range of samples from J. E. Bleckmann, Solingen.

Mr. James Henderson, of 204 Clarence-street, Sydney, left on a business trip to Melbourne, Hobart, Launceston, and Adelaide on July 2. He will display a complete range of goods on behalf of his various principals at the C..T.A. sample rooms in each city.

In Queensland.

Mr. Oliver M. Tibbits, of Beaucaire House, York-street, Sydney, left for Brisbane on July 2 with a full range of samples on behalf of his various principals. The C.T.A. sample rooms will be his headquarters while in that city.

Mr. George G. Milne, of Beaucaire House, 103 York-street, Sydney, who has been in New Zealand since March of this year, returned to Sydney on June 28. He will leave for Brisbane on July 10 with a full range of samples which he will display at the C.T.A. rooms.

Mr. P. Clifton Jones, formerly hardware and crockery manager for E. Rich & Co. Ltd., Brisbane, and now a manufacturers' representative with headquarters at Australia House, 52 Carrington-street, Sydney, will be visiting Brisbane at the end of June and early in July. He will be accompanied by one of his principals, Mr. Carl Dierkes, tool manufacturer, of Remscheid, Germany, who is making a special trip to Australia and the East. Mr. Dierkes has brought a very extensive range of high-class samples, which he has been showing with marked success in Adelaide, Melbourne, and Sydney.

To America.

Mr. L. Sevier, who has been associated with Lewis Berger & Sons (Australia) Ltd., Rhodes, N.S.W., for seven years as advertising manager, left by the R.M.S. "Aorangi" on June 30 for America, his native land.

From Europe.

Mr. G. H. Chubb, of the British safe-making company of that name, reached Australia early in July on a visit to the branch works in Sydney carried on by Chubb's Australian Co. Ltd. It is some five years since Mr. Chubb last visited the Commonwealth.

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Pottery and Glassware

New Ceramic Material.

A new ceramic material related to porcelain, that is not damaged by temperature changes, is said to have been developed by Mr. F. Behneke, of Lubeck, Handelshof. The inventor states that the material can be heated to 700° F., and immediately immersed in cold water without cracking. It has been stated that it will be extensively used in electric heating devices. The cost of production is but little more than for porcelain. Patents have been applied for throughout the world.

Electric and Table Glassware.

J. L. Walters Ltd., manufacturers' representatives, 222 Clarence-street, Sydney, are displaying, on behalf of the Jena Glass Co., Germany, electric shades of all designs, the decorations of which are carried out in the form of dancing figures, scroll and floral. A very special line are the glass cups and saucers and plates in white and gold, and white and blue. These novelties will withstand heat to any temperature, and do not break as readily as other glassware as special attention has been devoted to this phase. Reflector globes, chimney shades, tumblers, milk bottles either graduated or plain, and gauge glasses complete the range.

New Shapes and Shades.

Mr. R. M. Hall, of 185-191 Queen-street, is displaying some Crown Ducal decorative ware which strikes quite a new note in design. A combination of tangerine, blue, and plum tonings is used with fine effect, the general appearance being most pleasing.

Another range which appeals to the eye is in the well-known Byzanta ware. Here again fresh ideas and blendings of colour present a fine show. In the quality class is a set of "Carlton" specimens. The shades and figurings on these are specially fine.

The ever-popular Noritake ware is represented by a recent arrival of samples comprising small novelties, bowls, coffee sets, and ash trays. To mention a couple which stand out from an excellent lot of this ware, a blue camel design, and one with a butterfly on a Chinese brown ground should find a ready sale.

Dresden China.

J. L. Walters Ltd., 222 Clarence-street, Sydney, have been appointed Australian and New Zealand representatives for Carl Schumann, china manufacturer, Arzberg, Germany, on whose behalf they are displaying a comprehensive sample range of Dresdin china. A feature of this ware is that it is pierced. Floral and fruit with an occasional scroll or bird design form the main theme in the decorations, the colourings of which are executed in natural tones. The pierced articles are comports, plates, fruit dishes, salads and sweets dishes. In addition is the display of Dresden teasets and dinnerware. The decorations are in gold and floral trailing around the edge with bunched flowers, covering practically the surface of the base. Also shown is a cheaper quality of china by the same manufacturer, comprising salad bowls and dishes, plates, fruit comports and teasets. Similar designs to those of the higher quality Dresden china obtain, and the articles are in ovals, rounds and squares.

A Bohemian Range.

Mr. I. T. Soderlund, Australian and New Zealand representative of Josef Inwald & Co. Ltd., Bohemia, manufacturers of crystal and glassware, is displaying on behalf of his principals at 49 Clarence-street, Sydney, a large range of samples of high-grade cut crystal, moulded household glass and electrical units of all descriptions. Cut crystal, comprising some excellent shapes in squat and tankard trinket sets, water sets, vases, bowls, and liquor sets, are beautifully cut in diamond and round patternings. The crystal is of a beautiful clearness. The moulded variety embraces practically every article required in the average household. In the collection are powder bowls which present a fine showing with their variegated colourings on grooved opal glass, the lids being decorated with raised floral posies.

"Reflectine" lighting glass and "Supastone" hand-painted figured lamp shades are in well-assorted styles. Other types of glass shades which, when placed over electric globes, have the appearance and serve as an excellent substitute for those made of silk, are in a full range of designs and colours.

Tunstall Earthenware.

Mr. Leslie J. Pain, of 209a Castlereagh-street, Sydney, is displaying a fine new sample range of dinner services on behalf of W. H. Grindley & Co. Ltd., earthenware manufacturers, Tunstall, England. "Marjorie" shape is beautifuly designed, suggesting the fragrance of the country hedgerow. The centre motif—a nosegay of wild flowers with their greenery—is a medley of gay and charming colours. The brightness of each flower-tint on the delicate cream background is a work of art. Sprays of the same theme decorate the border which, in soft contrast, is ivory toned. Occasional fluting breaks the contour of the rim, traced with solid gold. The "Barbara," simple in design, is also nicely decorated with a posy of velvet petalled flowers in the centre with a suggestion of ermine, deep blue, and mauve tints interwoven with pale green. The border is of a deeper cream tone, and has an inner edging of pale old gold. The outer rim is encircled by a narrow band of acquamarine and gold round which trace water lilies. Bright-hued berries and flowers enclosed in delicate scroll work are placed at intervals recalling the colouring of the centre. "Ellesmere" and "Avignon" are other shapes beautifully designed but with different ideas for their floral decorations.

Swedish Cup for Federal Capital.

During the Canberra ceremonies, the Prime Minister (Mr. S. M. Bruce), received a delegation from the Swedish Chamber of Commerce in Sydney, who presented to the Commonwealth Parliament a beautiful Swedish cup of art glassware. The cup, the work of artists and craftsmen of the Orrefors Glassworks in Sweden, was presented to commemorate the opening of the first Commonwealth Parliament at the Federal Capital, and is an appreciation of the friendly relations and important trade connections established between Sweden and Aus-

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tralia. Round the cup are engraved symbolic figures, the most prominent of which is a female representing the new city of Canberra. She has a wreath of ivy round her head, and holds a sceptre in one hand and a torch in the other. On either side of this figure are Mercedes and Demeter, who represent the trade and industry of Australia. Between the figures are torches and flaming sacrificial fires. The dome-like lid is crowned by a rising sun, and round the cupola are engravings of the escutcheons of all the States of the Commonwealth, joined together in a ring by a laurel wreath. The cup was designed by the eminent Swedish artist, Edwin Hald, who is retained specially for the designing of all Orrefors engraved crystal products.

Crystal Glass.

It is not many years since there was only one make of cut crystal glass on the Australian market: an English line which may still be purchased at many stores. To-day, however, quite a number of good brands are offered. A large importer of glass and chinaware of high quality mentioned recently that some thirty or forty different manufacturers had shown samples of crystal articles in Melbourne in the early part of the year.

Much misconception obtains among the public regarding this material. It is quite the usual thing, the above-mentioned authority remarked, for a buyer of the fair sex to ask to see cut crystal goblets, of good quality, to cost two or three shillings each. Nothing can be obtained, of course, of even decent grade, under about five shillings. The customer is often found to be satisfied eventually with half a dozen goblets of pressed glass, and may be quite unconcerned when the assistant explains that these are not crystal glass at all, but an entirely different material. Not a few profess themselves unable to detect any difference between the two articles, and declare that "anyway the real thing is not worth the extra money." Such customers go away perfectly satisfied with their purchase. As this is almost invariably for a wedding gift, it is devoutly to be hoped the recipient has more discernment, and refrains from displaying the present proudly to her friends as "the best crystal cut glass."

To the expert it seems astonishing that any person with eyes is unable to distinguish the difference at a glance. And as to the matter of cost, it has to be remembered that the cut ware has been actually worked by hand, and thus cannot possibly be sold at the price of the pressed article, which is produced by machinery. In some specimens examined it was obvious that long and careful labour had been expended to turn out the beautiful designs exhibited. One decanter, representing the design of a Scotch thistle, was a gem. The stopper was perfectly produced, and formed a drinking glass in the shape of the thistle flower. "Presumably a gift for a Scotsman, who drinks alone," said the humorist standing by. This decanter, it may be mentioned, could not be purchased for five pounds, but one instantly felt it was worth the money. The article was of Canadian make, and from that country some very fine ware is now coming.

Crystal glass is to-day the most popular of any of this class of ware, and finds constant sale. It is not uncommon for the firm quoted to supply suites of the best grade at a cost of from £100 to £145. Evidently there are those, therefore, who appreciate the real thing. Crystal cut glass is now imported from many countries. Sweden, Austria, Czechoslovakia, as well as England, are drawn upon for Australian consumption, while several of these places also export pressed goods, which serve for those unable to afford, or perhaps appreciate, the better ware.

Agents and Agencies

G. P. Embelton & Co., of 579 Bourke-street, Melbourne, have been appointed agents for W. Roberts & Co. (Garston) Ltd., Liverpool (copper plates), and Kent Bros., Electric Wire Co., and E. H. Phillips Ltd., London (insulated electric wires).

Mr. J. G. Henry, well known to the hardware trade throughout New Zealand, with which he has been connected for many years, has been appointed Dominion representative for W. J. Kingsland Inc., New York, U.S.A., with postal address, Box 1008, Wellington.

Mr. J. L. Jamieson, who was for a number of years with Carr & Elliott, and secretary for Henry Lane (Australia) Ltd., both of Sydney, has resigned in favour of going into business on his own account as a manufacturers' representative. He will trade as Jamieson, Wynter & Co. at National Bldgs., 250 Pitt-street, Sydney.

Mr. S. R. Seaver, who for the past twelve years has represented W. J. Kingsland Inc., New York, resigned on June 30 in favour of an appointment as manager in Australia and New Zealand of E. C. Atkins & Co. Inc., Indianapolis, Ind., U.S.A., with office and sample rooms at Wingello House, Angel-place, Sydney.

Mr. George Matthais, who for the past 10 years was New Zealand representative for W. J. Kingsland Inc., New York, took over from Mr. S. R. Seaver, as from July 1, that firm's representation for New South Wales and Queensland, with office and sample room as at present at Broughton House, 181 Clarence-street, Sydney. Mr. Matthais is not unacquainted with the Australian trade since he was for some years prior to going to New Zealand associated with the Australian office of the firm. The business for the rest of the Commonwealth will continue in the charge of Mr. Harold J. Beer, Hardware House, Melbourne.

Mr. George H. S. Hoos, of The Block, Elizabeth-street, Melbourne, and Hoffnung's Chambers, Pitt-street, Sydney, has taken over as from June 1, the representation of T. & C. Clark & Co. Ltd., of Wolverhampton, and Wynn, Timmins & Co. Ltd., of Birmingham. These agencies were previously held by A. J. Chamberlin & Co. Pty. Ltd., who have now retired from business, and with whom Mr. Hoos was for many years connected.

Mr. Hoos is also handling the products of E. Pollard (Sundries) Ltd., London, manufacturers of special stands for the display of cutlery, spoonware, and similar articles.

As Melbourne representative of Phipson & Co. Ltd., 181 Clarence-street, Sydney, Mr. Hoos carries samples of the Valet, Autostrop razors, "Meta" fuel and appliances, and Gibbons stainless knife sharpeners.

Good Shooting.

No hardwareman, I fancy, has ever heard of a poor gun. Every customer tells of his gun's wonderful shooting powers. "How do you like your gun?" asked a salesman of a recent customer. "My, she's a bosker, I think she would kill rabbits with wads."—Sent in by a New Zealand correspondent, 45/209.)

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Make the Advertising Pay

A Page of Hints and Helpful Criticism

Send Us Your Ads ∴ Let Us Solve Your Problems

Who Pays for the Advertising?

That it pays to advertise is now such an accepted axiom that one seldom hears argument to the contrary; it is almost beyond dispute. But "Who pays for it?" is the big question round which the wordy battles of debate rage with undiminished vigour. And it is astonishing the amount of ignorance exhibited in the most unexpected quarters!

The writer once heard a prominent business man explain that the advertiser got over the cost of publicity by first creating a demand for his products and then reducing the quality.

That may happen occasionally, but the manufacturer who adopts such tactics will sooner or later pay for his error, to the uttermost farthing.

If you inquire of the man in the street he would probably tell you that the cost is simply passed on to the consumer; and in that he would get wholehearted support from his brothers in the trams and the trains—especially those interested in non-advertised products.

Paradoxical as it may seem, the man who does pay is the manufacturer who does not advertise his products. He pays, through loss of turnover, as we shall see presently.

Let us state a hypothetical case: "A" and "B" are two manufacturers of equal standing, except that "A" advertises, while "B" does not.

Each launches out in January with £100, on which he expects a return of 2½ per cent. every time he turns it over.

On account of his advertising "A" finds a ready market for his goods, and turns his money over (say) five times a year, making altogether 12½ per cent. per annum.

Meanwhile "B" finds that the retailer, having had previous experience of non-advertised goods, prefers well-known lines, and is chary of buying from "B."

Consequently "B's" turnover occurs only twice a year, making 5 per cent. per annum.

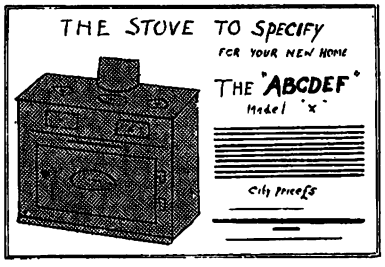
For next year's advertising "A" appropriates (say) 2½ per cent., leaving himself 10 per cent., or twice as much as "B."

Of course, "B" may argue that he allows a small cut in price as an inducement to the retailer to push his goods. But the retailer is working under the same principle as the wholesaler or manufacturer—namely, turnover; and he cannot afford to spend valuable time convincing a customer for the sake of sixpence or a shilling extra profit when there are others waiting to be served. So he places the advertised line before his prospect, and unless the latter has some special prejudice against that particular brand, the sale is likely to be effected.

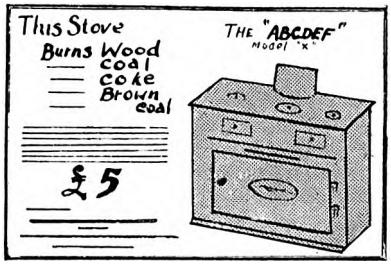
Which is Better?

Of these two layouts, the first is reproduced from an Australian "Home" magazine, in which half a page was used to display it.

"The Stove To Specify" is not a strong selling point, nor does it follow that the reader of the advertisement will require the stove for a *new* home. But the fact that it burns wood, coal, coke or brown coal is of considerable interest to most buyers, as also is the price if it is a low figure.



The name, "ABCDEF," is rather better placed in the original advertisement, but the better layout of the second more than compensates for that.



The perspective of the illustration—showing, as it does, the right hand side of the stove—demands that it be placed to the right of the advertisement, so that it will look into (not out of) it. And, as we read from left to right, the eye follows naturally from the selling talk to the illustration.

Strange but True.

Isn't it funny
That so many
Business men
Will get up in the morning,
Shave with an advertised razor
And advertised soap,
Put on advertised underwear,
Advertised hose, shirt, collar, ties,
Shoes, and suit;
Seat themselves at the table
And eat advertised breakfast food,
Drink advertised coffee or substitutes,
Put on an advertised hat,
Light an advertised cigar,
Go to their place of business in an advertised motor car,
And
Turn down an advertising plan
On the ground
That
Advertising doesn't pay?
—"Advertising in Australia."

An Advertising Fable.

A clever man wrote an advertisement about an automobile. It left the client breathless at its splendour. Everybody who saw it exhausted his supply of praising adjectives.

When this advertisement went before the public the whole country buzzed with approval. Folks pronounced it the cleverest piece of advertising they had ever seen.

The man who wrote the copy was "made." Everybody knew him, and he was a shining success.

A little-known advertising man was detailed to write an advertisement about an automobile. He knew all about it and believed in it. He knew people, and he knew how they liked to have a car talked about.

So this man wrote some copy that took a week to do. The boss and the client finally said it was good enough to use.

The advertisement appeared and everybody said what a wonderful car it must be. It was talked about everywhere. Even people who never had ridden in it boosted it.

—and many thousands went to see it
—and thousands bought it
—and the man wrote more copy
—and more people looked at the car
—and more people bought the car
—and the car was known everywhere
—that car was "made"
—and everybody knew it and it was a shining success.

Moral—It all depends.

—From "The Third Link," New York.

(Reprinted from "Printed Salesmanship.")

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Personal and Social

Fifty Years With the One Firm.

Mr. Richard Farleigh, warehouse manager, of Farleigh, Nettheim & Co., 80 Clarence-street, Sydney, was presented with a wallet of notes by the employees on June 18 on the occasion of the fiftieth anniversary of his joining the firm.

Departmental Manager.

Mr. E. G. McRae, who for some time past was first assistant in the hardware department of David Copland & Co., Wagga Wagga, N.S.W., has now been placed in charge of the department in succession to Mr. H. Vivian, who has retired for health reasons.

Letters of Administration.

The late Mr. John Nathaniel Spreckley, retired ironmonger, of Melbourne, left an estate valued at £12,718, being £3487 realty and £9231 personalty. Mr. Spreckley died on November 16 last, and letters of administration are now being applied for by the Equity Trustees Co. Ltd.

A Big Estate.

Probate duty amounting to £211,731 has been paid to the Victorian Government in the estate of Mr. Hugh Victor McKay, late of Sunshine, machinery manufacturer. Testator left estate in Victoria valued at £1,436,709, and also property in other States. Federal duty on the estate has not yet been assessed.

Commission of the Peace.

Mr. J. G. Black, president of the Victorian Hardware Club, has been elected a member of the council of the Association of Justices of the Peace. The election took place on June 7, two members of the association being nominated for the vacant seat. After the ballot had been taken, Mr. Black was introduced by Mr. Westley, and welcomed by the chairman and other members of the council.

Hardware to Hotel-keeping.

Mr. A. J. Chamberlin, of A. J. Chamberlin Pty. Ltd., Melbourne, for many years representing several large British manufacturers, has retired from the hardware business to become proprietor of the Kalimna Hotel, Gippsland Lakes, Victoria. His long travelling experience should stand him in good stead in his new relation of host to the many tourists who visit every year and every month of the year the popular "lakes."

An Englishman by birth, Mr. Chamberlin was brought cut to New Zealand by the Dunedin Iron & Woodware Co. of that city, and after six months in the warehouse, took the road as their representative on the West Coast of the South Island and over the whole of the North Island. It was in 1891 that he came to Australia and started business on his own account as a manufacturers' representative. In that capacity he has travelled all over Australia and New Zealand, and can look back upon some stirring experiences, the most noteworthy being the wreck of the s.s. "Wairarapa" on the New Zealand coast in 1894. He was travelling by that ill-fated vesesl when she struck a rock at midnight and went to pieces. Mr. Chamberlin had a trying time in the water and on the rocks, but lived to tell the tale. Another manufacturers' agent and old friend of his, Mr. William Whaley, was not so fortunate. He was among the drowned, of whom there were 125, being 105 passengers and 20 of the crew. The saved numbered 127 all told—82 passengers and 45 of the crew.

Complimentary Dinner to Cricketers.

A very pleasing function took place at the Hotel Orient, Geelong, Victoria, on the evening of June 10, when Mr. H. H. Bayley, captain of the cricket team connected with Hawkes Bros. Pty. Ltd., tendered a complimentary dinner to the players. The tables were beautifully decorated, and the service was excellent.

After the toast of the King had been honoured, Mr. Alec Lowe, the vice-captain, in proposing the health of the captain, referred to the excellent work of a pioneering character which had been done by the skipper, and congratulated him on converting the raw material at his disposal into a premiership team. The success of the side was largely due to good handling by the skipper, whose actions on the field had won the respect of both friend and foe. In concluding, he asked Mr. Bayley to accept an enlarged framed photograph of the team as a small token of the esteem in which he was held by the other members.

Mr. Bayley made a feeling response, in which he thanked the players for their gift and for the hearty co-operation they had always given him. He stated that he had played cricket for many years, but that the season just closed had been the best he had experienced. Not a single incident on or off the field had occurred to mar the game, and he hoped that next year the team would be equally successful.

The captain then presented the premiership cup to the players and handed over trophies won during the season to A. R. Lowe for the best batting average (31.9), L. Carr for the best bowling average (6.56), H. Armour for the greatest number of wickets (53), and C. Collyer for the highest individual score (81).

Death of Mr. A. R. Hendre.

Members of the hardware trade in Melbourne will be sorry to learn of the death, on June 18, of Mr. A. R. Hendre, for many years with Falk, Stadelmann & Co. Ltd., of Lonsdale-street.

Mr. Hendre came from London seventeen years ago, and immediately joined the staff of the firm with whom he remained to the time of his death. For a long time he had been in indifferent health, and latterly had been absent from business for as much as three months of the year on this account. Of most attractive disposition, the deceased gentleman was greatly esteemed by his friends for his unobtrusive yet kindly qualities. Although frequently suffering, he performed his duties with tenacity, and never complained even to his best friends. Those members of the Hardware Club who were acquainted with him, and they were many, speak most highly of his personal qualities. The management and staff of his old firm are especially affected by his death. Efficient and courteous at all times, his fellow workers find it difficult to realise he has gone. The general manager, with whom he was closely associated, speaks feelingly of the place he held in their esteem. He was not only conscientious and straightforward in his business life, but stuck unflinchingly to his job and performed his duties without complaint in spite of ill-health and its disadvantages.

The late Mr. Hendre leaves a widow and two children.

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News from Abroad

Among the Records.

Mr. Benjamin Worton, who died in England recently at the age of eighty-four, had been a moulder in the employ of the Cannon Iron Foundries Ltd., of Bilston, for the long period of seventy-one years. He began at nine years of age and continued until he was eighty. The moulding of Dutch ovens and camp stoves, which was his work for most part of his life, is no easy job, but Mr. Worton kept up with it as easily as he did fifty years before. Some thirty-five years ago he tried to insure his life, but the doctor rejected him on account of the state of his heart.

New Iron Smelting Process.

Successful results from a new electrical process of iron smelting, the so-called Flodin-Gustafsson method of extracting soft iron direct from iron ore, are announced by the director of the Forsbacka works. The new Swedish invention consists of a single process by which lumps of iron ore are electrically dissolved, and pure iron or steel obtained ready for use. The application of the method to the production of rust-proof iron has been practically tested for eight months, and rust-proof iron can be produced at the same price as ordinary iron.—"The Hardware Trade Journal."

Dead at Ninety-one.

Mr. Charles Ibbotson, who died recently in England at the advanced age of 91 years, was a cutlery manufacturer, and one of Sheffield's self-made men. He left school at the age of eight and had to educate himself, and when 21 years old started a small cutlery business in premises which he rented for 10½d. a week. In five years he was able to transfer the business, known as Charles Ibbottson & Co., to larger premises at Cambridge-street. Eventually the concern was taken over by Harrison Bros. & Howson, for whom Mr. Ibbottson became manager, and remained with them until he was 86. As a boy, Mr. Ibbottson suffered an accident which crippled him, and at 60 he had the leg amputated. In spite of this he maintained extraordinary activity, never taking summer holidays, and walking to work during a tram strike, although he was then 80 years of age.

Disston Twenty-five Year Club.

Some time ago a club was formed in the United States among those retailers who had sold for not less than twenty-five years the products of Henry Disston & Sons Inc. The first meeting and dinner of the club, which was formed by post, took place at Philadelphia on February 15 last. A huge cake lighted by twenty-five candles stood revealed when the doors of the banqueting room swung open, and when the top of this birthday production was cut off a young lady emerged to delight the company afterwards with her dancing. An orchestra and a quartette party also contributed to the enjoyment of the evening.

Mr. S. Horace Disston, vice-president of the company, welcomed the members and guests, some two hundred all told, and said the total membership then stood at 1066, representing 46 out of the 48 States in the Union as well as from Canada and elsewhere. He presented a travelling bag to Mr. Louis Mueller, whose firm had sold Disston saws since 1840, and a similar article to Mr. George Hegner, who had travelled from Sewickley, Pa., to attend the celebration. These gentlemen, it will be understood, represented the extremes in time and distance of those present.

Each guest bore the firm's Keystone emblem with his name on it, and this promoted that fraternising which was one of the objects of the gathering.

American Industrial Research.

In an article appearing in "Dun's International Review" of May, 1927, Mr. Austin C. Lescarboura states that one of the outstanding successes in American industrial research is that of the Portland Cement Association, which has done more for the advancement of the knowledge of cement and concrete than any other organisation. More than 350 experienced engineers are engaged in this commendable work which has served to place American cement in an enviable position, and has done so much to foster the ever-increasing use of concrete. A research laboratory is maintained, where the chemistry and mechanics of cement are carefully worked on and developed. A general office keeps in close touch with construction progress, and anything with promise is checked against data from other sources, and, if need be, is tested in the laboratory before the specialists are willing to consider the matter settled. Getting the facts, however, is only half the battle. They must be placed in the hands of cement users. All available means are utilised to this end. Through personal contact, lectures, moving pictures, booklets, advertisements and informative articles, the proved conclusions are broadcast.

German Production of Fuel and Motor Oils From Tar.

Since the war the production in Germany of brown-coal tar, which is distilled for its yield of paraffin, fuel, and motor oils, montan wax, and small quantities of lubricants, has now reached the total of from 110,000 metric tons to 140,000 metric tons annually. Gasoline substitutes evolved in lignite tar distillation are recovered both from washed gases and from the tar's first distillate. Gasoline recovery from dry-distillation vapours was placed on a commercial basis in 1925, employing a process similar to the so-caled "benzol-wash-oil." According to the American Trade Commissioner at Berlin, it is estimated that this recovery, when in normal operation, will produce from 20,000 to 23,000 tons of gasoline substitutes annually, from 2,600,000 tons of raw lignite. Direct tar gasoline production may amount to 3000 tons annually.

As a higher boiling fuel for Diesel and heavy oil motors, lignite gas oil or paraffin oil is said to excel black-coal dry-distillation oils as it has a higher hydrogen content. The production of higher boiling motor oils from brown coal probably amounts to another 60,000 tons. A recent estimate gives an output of 384,600 tons of petroliferous products from the distillation of German coal tar and shale in 1924. Dried lignite, treated with solvents such as benzol, produces montan wax, which is used in the electrical-insulation branch as a leather polish, gear lubricant, and for other purposes. In 1925 Germany exported 3067 tons of montan wax, as compared with 2580 tons in the previous year.

Retailing by Manufacturers.

In the United States some time ago the Ford Motor Co. opened stores for supplying their own employees with groceries, hardware, clothing, and other goods at very low prices. The underlying idea

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was seemingly the protection of the employees from anything in the shape of profiteering, and the stores were conducted on a no-profit basis. They simply paid expenses.

While satisfied that no "profiteering" obtained in these regular lines at the points concerned, and while feeling that the company might well have left their well-paid employees to buy through the regular channels, the retailers of the country recognised the right of manufacturing concerns to do this sort of thing, and made no formal protest. But when the company began to supply the general public on the same basis, the various traders, through their respective associations, complained very strongly and insistently. That prices should be cut to their prejudice by a company who make their profit out of the manufacture and not out of the marketing of goods was, they maintained, indefensible from any and every point of view, and they asked the management to abandon this uncalled-for and unfair extension of their operations. Protests flowed in from associations of traders not directly affected. The principle, they felt, was wrong, and they added their voices to the chorus of opposition. Evidently the management was influenced by these expressions, for the obnoxious practice was stopped, and the sales of the company are again confined to their own operators.

To this the established traders who have a living to earn and capital to protect take no open exception, although many of them feel that on the principle of "live and let live," the Ford management should keep out of the retail trade altogether. The field is already crowded, and so far from profiteering, many of the independent retail merchants of the country are not earning a reasonable return on the capital invested.

Industrial Welfare.

Yorkshire business men have the reputation for being hard and difficult to deal with. Whether this is really true or is just an impression they have fostered, is no concern of ours at the moment, but, true or not, it is certain that Yorkshire industrial concerns have not ignored the claims of the workers for healthy and human conditions in which to work and play, so necessary if they are to get the most out of life for themselves and be as efficient as possible in their labours. No less than thirty-two firms in the West Riding district carry on welfare work. Many of these are of world renown in the hardware trade, including, for instance, Edgar Allen & Co. Ltd., Sheffield; T. F. and J. H. Braime & Co. Ltd., Leeds; Brown, Bayley's Steel Works Ltd.; J. Brown & Co. Ltd., Atlas Steel & Iron Works, Sheffield; T. Firth & Sons Ltd., Sheffield; J. J. Habershon & Sons Ltd., Rotherham; Hadfields Ltd., Sheffield; Newton, Chambers & Co. Ltd.; Samuel Osborn & Co. Ltd., Sheffield; Priestman Bros. Ltd, Hull; and Rose, Downs & Thompson Ltd., Hull.

Brown, Bayley's have a fine nine-hole golf course laid out on ground originally intended for a garden suburb. The club house was bought and erected by members. In addition there are cricket, football, and swimming clubs and an indoor sports club for winter pastimes. The benevolent fund, which looks after the more serious interests of the workers, has many unique features in its management and the practical help it affords.

Thos. Firth & Co. and John Brown & Co. were among the first Sheffield firms to introduce welfare work into their organisations, and at present they share the one supervisor, whose interests are largely wrapped up in the further education of young boys who have left school and only just started work. Day continuation schools, evening classes and summer holiday camps are organised for their benefit. One form of welfare work of some importance is the works magazine, and it is interesting to note that "The Bombshell," of Firth's, has just produced its hundredth monthly number, being a vigorous magazine with advertisements and a sale of about 1800.

J. J. Habershon & Sons Ltd., Holmes Mills, Rotherham, established a welfare department nine years ago, and its many activities include an employment bureau, Whitley Council, first aid organisation, sick clubs, social club with a sports club and institute, tennis, cricket, football, fishing and radio clubs. There is a prize brass band formed entirely of employees, and the house magazine, "The Gauge," is in its sixth year.—"The Hardware Trade Journal."

Ninety Years of Manufacture.

Joseph Tyzack & Son Ltd., of Meersbrook Works, Heeley, Sheffield, recently celebrated the ninetieth anniversary of their inauguration. Commencing in a little workshop, the firm now occupy a two-acre site and give employment to some two hundred people. For a number of years they specialised on plastering trowels, and, taking as their watchwords, "quality first," their "3-Leg" trade mark became widely accepted as an indication of excellence in tool manufacture. This trade mark is now applicable to a large range of tools in which the standard of quality is jealously guarded. In 1885 the premises in the city of Sheffield were outgrown by the expansion of business, and new premises on a much larger scale were erected in Valley-road, Heeley. During the war period the whole of the plant was devoted to the manufacture of munitions. Saws, turnscrews, trenching tools, and other articles were turned out in thousands.

Always a prosperous side of the business, the activities in Dominion and Colonial markets were vigorously resumed on the cessation of hostilities. Additional agencies were established in different parts of the Empire, and all through the trade depression of the last few years, despite the recent coal strike, the firm's activities provided consistently a full week's employment for most of their workers. The firm have always taken a close interest in the welfare of their employees, and an extension of this is represented by their having provided two years ago a large sporting field with football and cricket pitches, tennis-courts, and other equipment, and every encouragement is given to their employees to keep themselves well-conditioned and happy.

The present factory is well equipped with the most up-to-date machinery, and apart from the manufacture of steel, every process is undertaken on the premises by skilled craftsmen. It is claimed, too, that every individual tool is thoroughly tested and examined during the various processes of manufacture, and is subjected to a final examination before being packed. The first consideration of the firm is to place in the hands of their workmen the best possible tool for the job, and they are always open to consider suggestions for improving any process employed or article produced.

These manufacturers are represented in Australia and New Zealand by Mr. Harold R. Richardson, whose headquarters are at Broughton House, 181 Clarence-street, Sydney.

Don't Look Cross.

A butcher in our business community, writes a New Zealand subscriber (73/208), is of the "hot and bothered" type. The other morning a lady customer of his asked for 6 lb. of corned beef, and added "Don't look so crossly at me." We may feel bustled at times, but fancy being told about it. If any hardware man is developing this expression, let him take heed in time.

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Interstate General News

Australian Manufacturers' Exhibition.

An exhibition of Australian manufactures is to be held in Sydney in December next. It is promoted by the New South Wales Chamber of Manufactures, and Mr. C. Roy Stanley, who was associated with the control of the New Zealand and South Seas International Exhibition at Dunedin, has been appointed manager.

Australian Engineering Standards.

The Australian Commonwealth Engineering Standards Association announce that the Australian Standard Specification No. C39-1926 T, slate slabs for electrical purposes, which has been issued in tentative form for twelve months, is now about to be revised prior to issue as an Australian standard. Criticism of the specification, and suggestions for its improvement are invited and should be forwarded to the headquarters of the Association, College-street, Sydney, not later than July 16.

Building in New Zealand.

During the month of March last building permits aggregating £860,908 were issued in the nine largest cities and towns of New Zealand. Metropolitan Wellington led the way with £271,653, followed by Auckland with £262,036, Dunedin with £150,230, and Christchurch with £86,268.

For the year which ended with the same month (March, 1927) the permits issued for Wellington and suburbs represented an outlay of £2,020,833. The city itself accounted for £1,024,293 of this total, Melrose for £422,691, Miramar for £231,271, Karori for £169,656, and the other suburbs for smaller amounts.

Proposed Factory for Motor Cars.

Mr. D. J. Malone, M.L.C., a director of the Purcell Engineering Co. Ltd., Auburn, N.S.W., who returned from a tour of the United States by the R.M.S. "Aorangi" on June 24, says that the prospect of erecting a large factory near Sydney for the production of motor cars is likely to be consummated, adding that in his opinion, and as a result of his observations, he is confident that cars can be better built in Australia than in America as Australian workmen on the average work harder than in the States and for less wages. Mr. Malone further stated that it was probable that when the venture is thoroughly established in Australia works for assembling would be erected in New Zealand.

"Made in Australia."

For the information of many inquirers, the Made-in-Australia Council in Victoria has issued a summary of their aims and objects.

The slogan of the council is "wherever you trade, buy Australian made," and the objects are:—

1. To ensure an increased output from factories.
2. To reduce unemployment.
3. To hasten the growth of population.
4. To provide "the man on the land" with a bigger local market for his product.
5. To promote the expansion of existing industries.
6. To encourage the establishment of new industries.
7. To make Australia self-contained.
8. To develop and strengthen the defensive power of the Commonwealth.

A non-political body, the council carry directly-chosen representatives of such bodies as the Australian Natives' Association, the Education Department, the Australian Industries Protection League, and others.

Victorian Ironmoulders.

From May 31 last an amended determination has governed the employment of ironmoulders throughout the State of Victoria. As before, the week of work runs to 48 hours, and the classification is fourfold:—(1) within the metropolitan district and the City of Sandringham; (2) within the City of Ballarat and the Borough of Sebastopol; (3) within the City of Bendigo and the Boroughs of Castlemaine and Eaglehawk; and (4) all other parts of Victoria. Only in three instances, however, do the minimum wages laid down vary in these different areas, these being:—(1) jobbing moulders or core-makers; (2) agricultural, stove, dairying, implement, or repetition moulders or core-makers; and (3) machine or plate moulders, where the difference is as much as 5/- per week, the metropolitan district being highest and the City of Ballarat lowest. These included the permissible wages range from £5/11/6 per week for skilled workmen to £4/7/6 for unspecified labourers. Overtime and holiday rates are prescribed, and the proportion of and rates for juvenile labour are also made part of the award.

Theft of Ironmongery.

Two men came before Mr. Justice Lowe in the Melbourne Criminal Court on June 23, in connection with goods stolen from the premises of C. J. White & Sons Pty. Ltd. One of the accused, Henry Edward Darvall, had been employed as a salesman by the firm, while the other, William John Adams, is a dealer and manufacturer with whom Darvall had had certain transactions. To the police Darvall admitted that he had stolen goods from his employers and sold them to Adams. Goods recovered from Adams for which Darvall said he had obtained £10 were worth over £70. These goods were identified by Mr. White as similar to goods stocked by his firm, and some of them represented exclusive agencies, but he acknowledged that he had not missed any goods from his shelves. Adams was not a customer of theirs. In court, Darvall withdrew his admissions and maintained that he had stolen nothing from his employers nor sold stolen goods to Adams. By direction of the judge, Adams was discharged, but the jury found Darvall guilty of stealing, and he was remanded for sentence.

Housed in Their Own Building.

In September next, Slade, Allan & Co., manufacturers' representatives, will remove to their own premises, consisting of five floors and basement, at 235-39 Clarence-street, Sydney, previously owned and occupied by F. Lassetter & Co. Ltd. These premises provide approximately 24,000 square feet of floor space, and are being entirely remodelled and fitted up as offices and sample rooms. They are well lighted and served with a large elevator.

The growth of this firm is noteworthy since we recall that in 1911 Mr. W. H. Slade was engaged in the produce business in Sussex-street. Visiting England and America in that year, he was given letters of introduction to the London and New York offices of this journal. This led to his securing representation in Australia for several large manufacturers. Mr. Slade's operations met with early success, and later he was joined in partnership by Mr. D. G. Allan. The business continued to grow,

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and needing more room, the firm recently acquired the premises forementioned. In addition to their headquarters in Sydney they have branches in all States of the Commonwealth and in New Zealand.

Business in New Zealand.

The economic committee of the Caterbury Chamber of Commerce issue periodically bulletins on "The Trend of Business in New Zealand." In a recent number they deal with three subjects (1) the balance of payments, (2) the change in bank rates, and (3) the general outlook.

After a world-wide review of price movements since the Great War, the committee conclude as follows:—"The wide price fluctuations of the past ten years may safely be regarded as definitely ended, and prices appear likely to remain fairly stable at levels little above, and possibly below, 50 per cent. higher than the 1913 level. In New Zealand the unsheltered industries have had to adjust their affairs to this situation. But the same pressure of falling prices in competitive markets has not been exercised in the case of our sheltered industries, whose costs and prices generally both remain high when compared with overseas prices. The prevailing high level of sheltered prices, shown in the high price indexes of sheltered industries, and in the wide margin between wholesale and retail prices, imposes an unduly heavy burden of costs upon the unsheltered industries, and, in addition, narrows considerably the local market for sheltered products. It is possible now to see the end of the present depression, as it is due to the recent adverse balance of overseas trade, but unless and until the local prices of the sheltered industries are brought down nearer to the level of the world prices received by the unsheltered industries, the local market for the products of those sheltered industries must necessarily be restricted, and some measure of depression continue."

New Business Premises in Sydney.

Dangar, Gedye & Co. Ltd., of Sydney, expect to move into their new premises in Young-street by the end of June. Malloch House is the name given to the building, which consists of a ground floor and six upper storeys with a total floor area of 46,000 square feet. The name has been selected in honour of the managing director, Mr. R. A. Malloch, who has guided the destinies of the firm for the past ten years. It is seventy-five years since they commenced business as importers, exporters and shipping agents.

With the passing of the years changes have been wrought in the acitivies of the firm, and business is now confined almost solely to the supply of labour-saving machinery for pastoral, farming, and domestic use. "Lister" engines and shearing machines have established a high reputation in the sheep country, and many a country home is lighted by means of "Lister-lite" electric light plants. The Kelvinator electric refrigerators are claimed by the firm to have advantages over ice chests, and have met with success in the outlying districts, where ice is not obtainable. Following upon the growth of business, the firm have had to seek larger premises several times since they first opened their doors, and on this occasion it is believed that ample space has been provided for many years to come. The assembly and bulk stores for the "Tivin Cit" tractors will still remain in another part of the city, but all the rest of the lines will find their home in the new premises. A feature of the new building will be the sheep-shearing service station. Large windows on the ground floor will serve to show off the goods to advantage. Lunch, rest and recreation rooms have been provided for the employees on a generous scale. The entrance to the offices is through a handsome vestibule and stairs panelled in Queensland maple.

Community Chest for Charities.

What seems a really good idea, capable of wide adoption, has been entertained by the Sydney Chamber of Commerce. At the instance of one of their members, the council have inaugurated a community chest for the support of the various city charities and especially the large public hospitals whose needs are so pressing. The desire is to unify and systematise the commercial community's giving for such purposes. Instead of giving at different times and through different agencies for the maintenance of one deserving institution or another, every business firm adopting this scheme will send a cheque periodically to the Chamber of Commerce Community Chest indicating just how they wish it distributed, and the "chest" will become the almoner. This will relieve the firm of chance and over-lapping appeals, and will show clearly just what they are doing in this particular field. At present many firms really do not know, because they are giving at odd times and in various ways, or perhaps turning down appeals which at "more convenient seasons" would have been sympathetically met. While freeing business firms from the bother of meeting all sorts of calls and callers in the interests of charity, the belief and likelihood is that the scheme wherever adopted will increase rather than diminish the amounts contributed for such needs. The managers who sit down and ask themselves what they shall give for the year and to what objects are likely to give more than the total of their unregulated occasional givings. Naturally the Chamber of Commerce looks to its own members to keep its "charity chest" reasonably full, but the scheme is not confined to members. Others may contribute through the same channel in this systematic way. They may either allocate their givings in whole or in part or leave the distribution to the discretion of the Chamber. Already the "chest" has been handselled with several generous gifts, and the chamber is hopeful that the scheme will appeal to the business community and grow to something worth while.

Commonwealth Tariff Decisions.

The following decisions of more or less interest to the hardware trade have been made during June. By way of explanation it should be mentioned that the double number on the left of each entry represents the tariff decision number, while the number to the immediate right is the tariff item, and the date following (6/8/26, and so on) the date on or from which the new decision took or takes effect:—

	Machinery, Machines, etc.—		
27/431	Injectors, Automatic, and parts thereof, for use in the manufacture or repair of Locomotives. (By-law No. 281.) Note.—The reference to Injectors, Automatic, Lunkenheimer, and to Injectors, Automatic, "Penberthy," etc., in "Guide," page 208, are to be cancelled.	404	6/8/26
	Machinery, Machines, etc.—		
27/440	Weaving Machines, Wire Mattress, Automatic. (By-law No. 272, Metal-working.) Note.—The reference to Wire Mattress Weaving Machines in "Guide," page 231, is to be cancelled.	174	2/5/27
	Metals—		
27/441	Rods, Aluminium Alloy, half-hard, hexagonal, ½ inch, for use in the manufacture of Motor Car Door Locks, under security. (By-law No. 285.)	404	10/10/25
	Plates—		
27/443	Copper, viz.:— Plain or tinned, unpolished, imported in widths exceeding 4 feet, subject to the condition that the Collector be first satisfied that the particular plates are essential for a definite purpose, and that security be given to, and to the satisfaction of the Collector that the plates will be used in widths exceeding 4 feet, for all purposes. (By-law No. 287.) Note.—Attention is drawn to T.D.'s 25/510 and 511.	404	17/8/26

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Sheets—

27/445 Copper, viz.:—
Plain, or tinned, unpolished, imported in widths exceeding 4 feet, subject to the condition that the Collector be first satisfied that the particular sheets are for a definite purpose, and that security be given to, and to the satisfaction of the Collector that the sheets will be used in widths exceeding 4 feet, for all purposes. (By-law No. 287.) 404 17/8/26
Note.—Attention is drawn to T.D.'s 25/510 and 511.

Machinery, Machines, etc.—

27/469 Boilers—
High Pressure Parts, viz.:—
Outlet Cross Pipe Boxes for use in the manufacture of Water Tube Boilers, under security. (By-law No. 320.) 404 14/2/27

Machinery, Machines, etc.—

27/472 Massage Machines, Electric, consisting of small electric motor and various rubber appliances for different forms of massage—
Motor .. .. 179 (d) (1) (a) 20/6/27
Rubber Appliances .. .. 332 (b)

Wire—

27/484 Iron and Steel, Tempered, etc.—The date of operation of T.D. 27/319, and By-law No. 191, is to be amended to read "13/11/26." (By-law No. 321.) .. ..

Deferred Duties—Deferment Notice No. 27—

27/485 The operation of the deferred duties under the undermentioned Tariff Items has been further postponed to the date shown respectively opposite each item:—
Item 168 (b). Sewing Machines, Treadle or Hand, of the type ordinarily used in the household—
(1) Machine Heads, whether imported separately or forming part of the complete machine, including accessories except wrenches and oil cans. .. 1/1/28
Item 181 (a) (2). Valves for Wireless Telegraphy and Telephony. .. 1/1/28
Item 186. Screw Hooks, Eyes and Rings. .. 1/1/28
Item 397 (a). Cartridges, n.e.i. 1/1/28
Item 397 (d). Powder, Sporting; .. 1/1/28
Wads for Cartridges, n.e.i.; Caps, Percussion; Cartridges for military purposes; Detonators; Cartridge Cases, empty, capped or uncapped; Fuse Cotton; Mining Fuses, electrical.

Electrical Appliances and Materials—

27/486 Lightning and Surge Arresters of the condenser type not including the following:— 415a (2) 5/1/27
(a) Isolating links and choke coils, unless such links and choke coils form an integral part of the lightning or surge arresters
(b) Auxiliary apparatus, excepting earthing inductances, for use therewith.
(By-law No. 335.)
Note.—The reference thereto in By-law No. 74, and in Consolidated By-laws, page 117, and T.D. 26/672, are to be cancelled.

Machinery, Machines, etc.—

27/492 Signalling Appliances (Electric), for Railways, viz.:—
Interlocking Machines (so called) .. 179 (c) 27/6/27
Note.—This cancels T.D. 23/371.

Wire—

27/500 Steel, half round, for use in the manufacture of Boot and Shoe Laces, under security. (By-law No. 333.) 404 11/10/26
Note.—The reference to Bright, half round, steel Wire, for use in the manufacture of Boot and Shoe Laces, under security, in "Guide," page 403, in By-law No. 71, and in Consolidated By-laws, page 99, is to be cancelled.

Wire—

27/501 Steel, straight, hardened and tempered, .029 inch thick, for use in the manufacture of Electrical Meters. (By-law No. 334.) 404 8/12/26

Trade of the Commonwealth.

The Quarterly Summary of Australian Statistics (March, 1927) gives the value of the principal articles of merchandise imported during the March quarter, 1926 and 1927, and the first nine months 1925-26 and 1926-27. Following are the lines of direct interest to our readers:—

	March Quarter.		First Nine Months.	
	1926 £	1927 £	1925-26 £	1926-27 £
Cordage and Twines (excluding metal cordage)	45,583	41,848	175,044	198,205
Oils—				
Kerosene	208,393	270,226	695,327	878,584
Linseed	40,408	20,486	113,752	60,769
Lubricating (mineral) ..	210,056	306,586	687,911	848,470
Petroleum Spirit	1,723,813	1,901,030	4,998,518	4,998,365
Turpentine	26,660	15,041	112,835	130,775
Other	304,971	336,118	802,486	1,007,856
Electrical Machinery and Appliances—				
Cable and Wire, covered	536,296	445,530	1,058,846	1,347,614
Dynamo Electric Machines	254,164	246,164	718,421	804,853
Lamps, Filament, for lighting and heating	122,520	159,080	377,665	440,920
Implements and Machinery (Agricultural, Horticultural, etc.)	162,697	191,760	675,951	620,078
Metal-working Machinery	194,269	139,820	383,674	457,791
Motive-power Machinery (except Electric) .	688,261	599,935	1,687,763	1,863,634
Printing Machinery	162,561	166,709	363,306	396,121
Sewing Machines .	132,818	165,525	394,140	473,757
Yarn-making and Textile-making Machinery	136,604	128,147	287,296	384,910
Other Machines and Machinery	912,574	972,302	2,563,213	2,789,715
Alloys	105,965	95,366	278,668	297,197
Bolts and Nuts, Rivets, Washers	78,954	84,927	229,331	243,165
Iron and Steel—				
Bars, Rods, Hoop, Ingots, etc. ..	253,709	367,140	706,263	796,152
Beams, Channels, Girders, Joists, etc.	115,285	73,797	275,204	151,181
Pig and Scrap .	32,607	12,978	94,837	48,600
Pipes and Tubes	443,196	428,322	1,142,520	1,183,723
Plate and Sheet—				
Galvanised, corrugated ..	420,253	462,130	1,229,207	1,244,913
Galvanised, flat	132,252	163,708	385,992	375,298
Plain	217,365	240,853	600,323	515,160
Tinned	428,383	483,471	1,037,751	1,003,711
Rails, Fishplates, Fishbolts, etc.	16,376	29,548	47,981	51,392
Wire	156,819	127,590	412,432	473,799
Lamps and Lampware	131,880	173,889	389,464	449,360
Plated Ware and Cutlery	170,129	304,508	709,360	839,137
Tools of Trade (not being machines)	296,821	329,363	879,714	987,722
Other Metals and Metal Manufactures	1,245,573	1,204,319	3,629,332	3,562,369
Leather	59,657	68,624	195,910	235,218
Leather Manufactures, etc.	51,016	50,038	142,060	155,752
Cement (Portland)	21,746	17,231	57,056	49,894
Crockery and other Household Ware	176,754	210,146	604,671	589,637
Glass and Glassware	348,080	339,232	939,316	1,031,288
Other Earthenware, Cements, China and Stoneware .	104,689	144,757	268,009	350,492
Brushware	95,377	127,891	343,565	434,972
Grand Total	39,300,191	42,332,732	116,091,586	126,312,790

Part of the Game.

The man who is worthy of being a leader of men will never complain of the stupidity of his helpers, of the ingratitude of mankind, nor of the inappreciation of the public. These things are all a part of the game of life, and to meet them and not go down before them in discouragement and defeat is the final proof of power.—Elbert Hubbard.

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Publications Received

Safety Razor Blades.

Among the British firms who have taken up the manufacture of safety razor blades are Darwins Ltd., of Sheffield. Their Fitzwilliam works are capable of producing one million blades a day, or about one-sixth of the world's estimated requirements at the present time. Instead of carbon steel the firm use a patented cobalt high-speed steel, which yields a blade having greater cutting efficiency and polished rustless edges. Blades are turned out to fit Gilette, Valet, and other types of holders, all bearing the Darwin brand. They are hardened in mass with perfect uniformity, and as compared with carbon steel blades, are more reliable and longer-lived. These particulars are gathered from a leaflet forwarded by the makers, who say they have no direct agent in this part of the world.

Commonwealth Customs.

A revised edition of "Young's Australian Shipping and Customs Guide" has been issued by the compilers, Tho. H. Young Pty. Ltd., of 493-97 Flinders-street, Melbourne. Being themselves experienced customs and shipping agents they are able to show the official requirements and offer advice which ought to be very useful to both importers and exporters. The arrangement is good, so that any particular aspect of the question may be found under an appropriate heading. In addition to the tariff information there is a good deal of related matter, the landing charges at the principal ports of Australia and New Zealand occupying much space in the publication, a volume of 86 pages 9½ x 6. A section on "Invoice Quotations" explains the meaning of the various shipping terms. Maps of the various states are interspersed.

Williams' Wrenches.

A twentieth edition of their catalogue of drop-forged tools has been issued by J. H. Williams & Co., of Buffalo, New York, U.S.A. A small volume 6 x 4 in coloured cover and running to 200 pages, it carries illustrations of the wrenches and other tools for which these manufacturers are world-known. New to this edition are (1) the "super-rench" of chrome molybdenum steel in five patterns and various sizes, (2) new sizes of the "Vulcan" chain pipe tongs, and (3) a new design with deeper throat of the light service "C" clamp. New also are certain wrench finishes. In place of the old semi-finished and mottled and nickel-plated finishes they now offer at semi-finished price wrenches finished in black enamel baked on. Smooth of surface with polished heads, these wrenches, while built for hard service will retain their appearance for a long time. Their unfinished wrench, made like the finished of carbon steel, is also new with smooth shank and case-hardened. All kinds of wrenches are made by the firm together with tool holders, lathe dogs, clamps, thumb-screws, hoist-hooks, and a great variety of other drop forgings.

Our copy of an interesting booklet reaches us direct from headquarters, but the firm are represented in Australia by Jones & Joseph Ltd., of 387 George-street, Sydney.

Sheffield and Its Manufactures.

"The Empire Mail" for February is a Sheffield number which helps the outsider to realise just what this far-famed city stands for in the industrial life of Great Britain and the trade of the world. Following some introductory words by the Lord Mayor (Ald. J. G. Graves, J.P.), come articles on "Sheffield and the Empire," by Major-General Sir F. H. Sykes, M.P.; "Sheffield's Trade with the Dominions," by A. V. Alexander, M.P.; "The Assets of Sheffield," by R. Storry-Deans, M.P.; "Sheffield's Industry and Enterprise," by Arthur Ponsonby, M.P.; "A Multiplicity of Manufactures," by C. H. Wilson, M.P.; "The City of Sheffield," by Sir William Hart, the Town Clerk; "University Education in Sheffield," by Sir Henry Hadow; "Co-operation in Healing," by Ronald W. Matthews; "Trade Tendencies in Sheffield," by David Flather, Master Cutler; "Sheffield's Great Industries," by J. H. Chapman, president of the Sheffield Chamber of Commerce; "Quality the Watchword," by Sir Arthur Balfour, J.P.; "The World's Steel Centre," by Sir Robert A. Hadfield, Bt.; "Heavy Forgings in Sheffield," by Sir William Ellis; "Cutlery of Incomparable Quality," by J. G. Elliot, president of the Sheffield Cutlery Manufacturers' Association; "Research in Cutlery Manufacture," by J. M. Denton, honorary secretary of the British Cutlery Research Association; "The Cutlers' Company," a compilation; "Old Sheffield Plate," by Frederick Bradbury; "The Sheffield Type Foundry," by Stephenson, Blake & Co. Ltd.; "Evolution of the Saw," by T. W. Willis, president of the Sheffield Saw Manufacturers' Association; "File Making in Sheffield," by F. C. Fairholme, president of the Sheffield File Manufacturers' Association; "The Making of Scythes," by William Tyzack, chairman of the Scythe Manufacturers' Association; "Refractory Materials of the Sheffield District," by W. J. Rees, B.Sc.; and "Stainless and Rustless Steels," by an unnamed technical expert.

A very comprehensive survey, the foregoing, fairly covering the outstanding features of a busy manufacturing centre, and introducing some names known the world over in connection with the working of metals. No less interesting is the section which follows, a section of descriptive advertisements which also deals with firms of world-wide fame and connections. Being well-illustrated these pages convey at a glance something of the magnitude and variety of the work undertaken. The outsider thinks of cutlery when he thinks of Sheffield, but while cutlery is prominent in the city's output, it is far from being the only line occupying the attention of its artisans. Steel and iron, machinery for many purposes, armaments, tools of all kinds, wire ropes, springs, tyres, wheels, axles, and railway and tramway trucks and rolling stock are among the heavy industries prosecuted with success in this hive of industry.

Sheffield was created a city in 1893, and has now a population of 519,213. Its town hall, opened in 1897, is a very imposing structure, and its Corporation has carried out extensive schemes of street widening and other improvements. The University of Sheffield dates from 1905. That, at any rate, is the date of its charter, for the three foundations of which it is really composed, the Firth College, the Medical Academy and the Technical School, had been united since 1897 as the Sheffield University College. At present the University is housed in two main buildings, the one at Weston Park containing the chief administrative offices and the departments of Arts, Pure Science, Education, Medicine, and Law. The other building at St. George's Square shelters the departments of Engineering (mechanical, civil and electrical), Metallurgy, Mining, Fuel Technology and Geology. Situated by itself is the department of Glass Technology, "a department which Sheffield is the only University to possess." Sir Henry Hadow, who writes the article on university education, is the vice-chancellor.

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Australasian Metal Markets

All prices are quoted for approved brands, duty and over charges included. For English prices, see The Month's Cablegrams on page 226

Sydney, June 28, 1927.

June trading has not been up to expectations. Spasmodic demands have been noticed on several lines, but the incidence of stocktaking has been marked by much smaller transactions than was the position last year. Country trade is very quiet, but merchants believe there will be an improvement after the closing of the half-year's trade. In the metropolitan area nothing of note was recorded; cash trading with the smaller storekeepers is said to be well spread, although quantities have been smaller than usual. Painters' materials received only moderate attention, although in oils some houses had a good month. Some transactions were recorded on interhouse account, but there has been little activity since. Turpentine and resin are quiet, and replacement values for shipments during the later months of the year are lower than for some time past. Shellac showed a higher price for October—new season's shipment—and reports are to hand of indent business recorded. Tinplates, Welsh I.C. coke, are well held on spot, and late shipments have increased the stocks somewhat in advance of requirements at the moment. Indent prices and shipments indicate a stronger position overseas for the later months of the present year. Jute fabrics, after months of local dulness, became active when it was stated that consignments of woolpacks just shipped from Calcutta were on a ship which had suffered frm fire on board, and the local transactions were recorded very rapidly. It became serious for sellers who had made contracts for delivery, and endeavours were active to cover up without delay. Calcutta also advanced in price, and the whole trade in jute fabrics has had a remarkable change in conditions, especially woolpacks. Trade is not in general buoyancy, but reports lead one to feel that July will turn the tide. Such lines as corrugated sheets have been short in stock, and demands for certain sheets could not be supplied. Some corrugations, however, were sold, principally the usual roofing, 26-gauge. Plain galvanised sheets were very hard to secure.

Auckland, June 24, 1927.

Trade conditions show little change unless it be a slight improvement in the country, where the storekeeper has shown some inclination to book orders forward. The recent improvement in the price of butter should have a beneficial effect on the farmer, who, while producing more, has suffered severely from the lower prices ruling at home under the butter control system. Building shows no improvement in residential properties, but work on certain business premises is in hand. Prices show little change since last report. The demand for iron and steel is fair, and prices remain the same. Good stocks of corrugated iron are held, and prices are down £1 a ton all round—£30 for first, £29 for second and £30 for local. Stocks of water pipes are still heavy and fair sales are reported. The demand for fencing wires show some improvement, but prices remain unaltered. Ingot tin is quoted at 3/3 per lb. in sympathy with the markets of supply. Pig lead is steady at £35/5/- per ton. Fair stocks of white lead are held and holders are selling at a bare margin to turn stocks over. Prices of linseed oil are unchanged and good stocks are held.

Christchurch, June 14, 1927.

Hardware business in Christchurch is still fairly quiet, and as this is the middle of winter, nothing else can be expected. The long-continued drought has broken at last, and good soaking rains have fallen so that farmers are able to do their ploughing, which was impossible in some districts owing to the hard state of the ground. Orders for fencing standards and requisites such as plain and galvanised wire are selling, but not so freely as usual owing to the farmers' reduced spending power. The latter has been caused partly by the reduced prices of our primary products and by the advance in the bank rate on overdrafts. The Canterbury Chamber of Commerce has recently issued very interesting bulletins on the financial position, going into very critical details of the balance of payments, the change in bank rate, and reviewing the general financial outlook. The building trade is very de-

NEW ZEALAND PRICES.

	Duty.	Auckland, June 24	C'church June 14	Dunedin, June 16	Wellington May 26
IRON—					
Bar—		£	£	£	£
English ..	Free	21	22/	23/	24
Shoeing ...	,,	23	23/	21/	25
Steel ...	,,	15/10 to 21/-	20	23/	18/ to 25/
Pig	,,	8	10/6	10/6	9/- to 10/-
Plate ...	,,	21 10/	24/	25/	24/6
Hoop ...	,,	24/, 35/	33/	32/	33
Sheet, Blk.	,,				
to 20-g. ...		23 10/, 24 10/	26/6	26/	24/6 to 26/6
22 & 24 g.		25 10/	28/6	28/	26/6
Galv. Cor.—	2/-				
First ...		30	30/ Builders	33/	32 10/
Second ...	,,	29	30/6 ,,	32/	31 10/
Local ...	—	30		...	...
Do., Plain	Free		...		
24 & 26 g.		32/, 33/	38/, 35/	35, 37, 39	31 10/
Pipe—Galv.	Free	45%	42½% off	42½	40% off
,, Black	,,	50%	47½% off	50% off	50% off
Wire—	,,				
Galvd. ...	,,	16, 18	18/	16/6	17/6 to 18/6
Black ...		16/6	17/	15/6	
Barbed ...	,,	21, 23 10/	24/-	21/	25/6 to 26/6
Nails	2/4/- c.	20/6	21/-	21 10/ to 23	23
,, N Z.		20/6	...		23
Lead—Pig	Free	35/3	45/	48/	40/
,, Sheet	,,	44/	52/6	60/	60/
,, Shot	10/-	75/	80/	80/	75/
Tin—Ingot	Free	3/3	3/4	3/2	3/7
,, Plates	,,	32/6, 48/6	50/ I.X.	40/	37/6
Zinc—Sheet	,,	7½d. lb.	9d. lb.	8½d.	8¾d
Quicksilver	—	...	6/6 lb	...	...
Cement—					
Imported	1/-cwt.	...	22/6 cask	...	...
Local bag	—	5/8	7/-	6/	5/11
Slates ,,	Free			...	
P. of Paris ...	,,	27/6	32/6	26/6	27/6
White Lead	10%a.v.				
Best ...	—	60/	59/6 to 62/6	65/	69/ to 70/
Second ...	—	59/		...	68
Blst. Powder	Free	1/8	1/9	1/7	1/8
Rope— ...	20%				
Manila, Star	—	111/	111/	116/	111/
,, O. ...	—	107/	107/	112/	107/
Flax, N.Z. ...	—	81/, 88/	88/	88/	88/
Cornsacks ...	Free				
44-in. ...	—	...	...	12/11	14/6
46-in. ...	—	...	14/9	12/3	14/9
48-in. ...	—	15/	15/	12/10	15/
Woolpacks ...					
Full ...	Free	5/3	5/3	4/4	5/3
Oils—					
Lins'd, raw	6d.	5/3	N.Z.4/9 Eng 5/-	5/3	5/9
Castor ...	Free	5/-	6/	5/6	5/6
Colza ...	,,	7/9	8/	8/-	7/9
Kerosene	,,	14/9	14/9	14/9	14/3
Turpentine	,,	7/6	7/-	7/6	7/6 to 8/

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pressed at present owing to a shortage of money at a reasonable rate of interest, and the delay in obtaining payments from the Advance Board. There is a great deal of unemployment, and the citizens have set up a big committee to deal with the problem. The mayor has interviewed the Premier in Wellington, and has been promised a subsidy of £1 for £1 on money expended on reproductive work by genuine unemployed. The price of wire nails is on a basis of £21 per ton for 4 in. x 7 gauge, all lengths and gauges being available, the local manufacturer, Mr. J. Venables, securing most of the business offering from hardware merchants. Good stocks of galvanised tubing are held, and the present quotation is 42½ per cent. discount off Lloyd's list. Genuine English linseed oil is selling at 5/- for raw in 5-gal. drums, with boiled 3d. extra. Genuine English white lead is quoted at £62/10/- per ton in 1-cwt. packages. Corrugated iron was recently reduced, and Orb brand is being quoted to builders at £33 for basis of 8 ft. length, with an advance of £1 per foot for longer sheets.

Dunedin, June 16, 1927.

Midwinter invariably finds trade slack, and the present period is no exception to the rule, although no great complaint is being made. Stocktaking is about to be entered upon so as to take advantage of this limited demand and get the thing done with the least interruption to buying and selling. The future is promising as many contracts of a substantial kind are maturing. The most recent one is that for the erection in the centre of the city (the Octagon) of a theatre and kinema palace to cost in the first instance £35,000. Following a recent cyclonic disturbance with damage to many buildings, a considerable demand for materials was experienced. The annual winter show of the Otago Agricultural and Pastoral Society, which opened on May 29, proved a great success both in exhibits and attendance. A big fillip to the city business invariably attends this yearly function, many country visitors taking the opportunity of satisfying deferred wants. The motor exhibits were as good as ever, and machinery and hardware were well represented. Since last report prices have been but slightly affected. English bar iron has been reduced to 23/-; black sheets to 20 g. are lower at 26/, and 22 and 24 g. at 28/-. Galvanised plain iron is also down to 35/-, 37/-, and 39/-. In oils, linseed, raw, has been increased to 5/3, and castor to 5/6. As regards corn sacks, a reduction has been made in 44 in. from 13/3½ to 12/11, while 46 in. are down from 13/- to 12/3, and 48 in. from 13/6½ to 12/10.

Brisbane, June 30, 1927.

June is always recognised as a very slow month in the hardware trade generally, and merchants have learnt to accept the inevitable. Both town and country are endeavouring to reduce stocks to a minimum. Nevertheless, there is a fairly optimistic tone throughout the trade and some good business is expected during the next six months. Prices are fairly stable in most lines. In heavy hardware stocks are pretty right, with perhaps the exception of ⅛ in. plate, which is still on the light side. Shelf goods are slow, and we may expect a cutting of prices by the departmental stores during their winter sales. Stocks are good all round. Paints and oils have been moving well with prices steady and stocks plentiful. Turpentine has dropped and sellers are anxious to quit at 6/- or better. Substitute has also eased in sympathy with the pure spirit. Sanitary material and accessories are on the slow side, and contractors are inclined to blame the sewerage boards for the delay in issuing tenders. Prices are unchanged and stocks in full supply. Woolpacks are exceptionally short, and prices for spot stocks are now 6/3. The grounding of the Calcutta boat is said to be responsible for the shortage. Full supplies are expected to arrive about the end of July. Merchants are quoting 5/6 for August delivery, consequently buyers are holding off as far as is compatible with their shearing arrangements.

Adelaide, July 1, 1927.

Trade at this centre during the month under review has been quiet. June is always looked upon as a slow period, however, as it is for most houses the end of the financial year. Business should brighten up now that balancing and stocktaking worries are over as prospects for the season are by no means disheartening. It is confidently expected that the comparatively small turnover of the past few months will be partly recouped during the present month. Newcastle pig iron and bar and rod iron show slightly lower tendencies. Spring head roofing nails are also lower, manufacturers having reduced prices as from July 1. Ingot tin opened at £291 and closed yesterday at £297/10/- in ton lots. Lead prices are down slightly, the lead works having reduced prices £1 per ton on June 11. Sheet zinc prices are also lower. As stated, business has been by no means brisk, and no buying or selling activities in Adelaide call for special comment.

Melbourne, July 2, 1927.

The demand for heavy metals has not appreciably improved during the past month. Structural iron and steel finds quite a fair sale, however, mainly for structural purposes. Melbourne has supplied many parcels of steel for interstate consumption. Amongst these may be mentioned 10 tons of $\frac{5}{16}$ round mild steel at £16 less 2½ per cent; 5 tons, 5 in. by ½ in., at £15/10/-; and 4 in. by ½ in., at a similar price. Another lot noted was 1500 ft. 8 in. by ½ in. mild steel at £17/10/-. Galvanised iron showed a slightly lower tendency, especially for outside English brands. In lots of 5 tons these classes of iron were purchased at £26/10/-. The figures ruling for such makes as orb were in several instances 10/- lower than previous quotations. Galvanised hoops were samewhat lower in price. One or two handlings of 5 tons fetched £27/10/-. Clearances of fencing materials were observed at ruling rates. German brands of fencing wire advanced by 5/- in 9 and 10 gauges. Speaking generally, however, the dry weather has militated against sales of wires and netting. Portions of Victoria are still in need of rain. Dealings were limited to 5 and 10 ton parcels of galvanised wire, 9 and 10 g. being sold at £17, and £17/10/- respectively, while No. 8 galvanised brought £16/15/-. Wire netting was seldom handled in large parcels. Examples which may be quoted were 10 miles, 42 x 1½ x 17, at £42; 5 miles, 42 x 1¼ x 17, at £49; 2 miles, 30 x 4 x 16, at £19/5/-; and one mile of 12 x 1¼ x 17 at £19/5/-. A few purchases of pig lead, of from 2 to 5 tons, brought £26/15/-. Ingot tin was accepted in several quarters during the month, the trend of the market being shown by the figures, which moved from £298 to £301, and later to £303. One ton lots of sheet zinc, Nos. 14 and 16, size 7 ft. x 3 ft., were sold at £55. Although large quantities of cement are being produced in Australia, a steady demand exists for the imported material. The total shipments would not, however, amount to a high tonnage. In the smaller hardware, and shelf goods, trade is quite up to the average. Enamelled and aluminium ware sells freely, while a constant demand is experienced for cheaper Continental and American brands. Rabbit traps were in demand, many sales of "Victor" brand being reported at from 22/6 to 23/- per dozen. In lots of 25 dozen Sidebotham traps were inquired for at 20/-. Business in oils and paints has been quiet. As recently predicted, linseed oil has been brought ahead in considerable quantities, and Australian brands are inclined to harden in price.

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The Month's Cablegrams

Copper, Tin, and Silver. — The following table shows the quotations at the undermentioned dates, compared with those of the corresponding periods last year:—

Date.	Copper. Electrolytic. Per Ton.		Tin. Standard. Per Ton.		Silver. Standard. Per Ounce.	
	1926	1927.	1926.	1927.	1926.	1927
	£	£	£ s. d.	£ s. d.	d.	d.
May 31..	64–64½	60–60½	268 11 6	291 11 3	30 1/16	26⅜
June 2..	64–64½	60–60½	262 17 6	292 16 3	30⅛	26½
,, 8..	64½–65	60½–60⅝	267 17 6	295 13 9	30¼	26 3/16
,, 15..	65–65½	60–60½	269 7 6	293 2 6	30⅜	26¼
,, 22..	64⅝–65¼	59½–60	273 17 6	298 12 6	30 5/16	26 5/16
,, 29..	64⅝–65	59½–60	272 2 6	297 16 3	30 5/16	26⅜
July 4..	64½–64⅝	59½–60	273 11 3	295 5 0	30 5/16	26

The stocks of tin in the United Kingdom at the end of May were 13,850 tons, the deliveries for the month 2494 tons, the quantity on spot 357 tons, and the quantity afloat 1810 tons.

Lead.—In the London market soft foreign lead on spot has been quoted as follows:—June 2, £25/3/9; June 8, £25/1/3; June 15, £24/8/7; June 22, £24/5/0; June 29, £23/17/6; July 4, £23/3/9.

For the month of May the imports of lead into the United Kingdom were 21,573 tons, including 9058 tons from Australia. The exports were 1446 tons.

Spelter.—The spot quotations for spelter, as cabled from London, have run as follows: — June 2, £28/17/6; June 8, £29/0/0; June 13, £29/0/0; June 22, £28/8/9; June 29, £28/7/6; July 4, £27/16/3.

Tallow.—Following are the statistics for June, and particulars of the latest auction sales:—

June	Casks.	Date.	Casks Offered	Casks Sold.	Mutton, Med., per cwt.	Beef Med, per. cwt.
Imports		June 1	883	382	34/6	34/6
Deliv..		,, 8	Nil			
Stock		,, 15	1179	427	34/-	34/-
		,, 22	1077	455	33/6	33/6
		,, 29	1247	153	33/-	33/-

Industrial Development in South Africa

(Contributed by 46/207)

Mr. L. C. Partinton, an electrical engineer in the service of the Johannesburg Municipal Council, took Australia in his itinerary in a voyage round the world. It is this gentleman's first visit to Australia, but Mrs. Partinton, who accompanies her husband, is a native of Townsville, North Queensland. The appearance of Australia's cities and their industrial activities greatly surpass Mr. Partinton's expectations. South Africa's industrial development in comparison with Australia's being a pertinent subject, Mr. Partinton supplied some interesting information.

Mainly owing to paucity of white population, which numbers about 1,500,000, South Africa is largely an importing country. A teeming, and as yet rather primitive, native population whose needs are limited does not provide any considerable market. Johannesburg in the Transvaal, a city of 170,000 inhabitants, is the industrial centre of South Africa. There, mainly on the Rand, incipient industries are located in proximity to the mines, which logically are the largest customers. Engineering and foundry naturally have become the most prominent industries there. In many cases the material used is from native ore won in the mines at Newcastle, Natal, and there converted into pig iron.

An enterprising and successful firm is the Transvaal Nut and Bolt Factory, whose products sell throughout South Africa. Leading industrially is the Union Steel Corporation (of South Africa) Ltd., whose works are at Vereeniging, and who produce steel rails and fishplates, steel and iron in various forms, steel castings and mining materials. Also of importance is the Dunswart Iron Works on the East Rand, which produce mainly bars and angles and good heavy steel castings. Located variously on the Rand are several smaller rolling mills. In Johannesburg, however, most of the established industries are located and find the largest market. Two comparatively large and several minor engineering concerns manufacture mining machinery.

Inaugurated thirteen years ago by a Mr. Anderson with a 5 h.p. motor for the making of small spares for motor cars, the Central Engineering Works have developed into the most modern concern in the Transvaal, including in its plant a foundry. Co-partnership of employees is a feature of the proprietor's policy. On a smiliar share principle a firm some eight years ago began to make spares for agricultural machinery in East London. Equipped with latest machinery, the concern now supplies practically all the requirements of the country.

In Johannesburg the Denver Engineering Works also own a large foundry and employ 200 whites in the making and repairing of locomotives and machinery. Steel works situated on the Jupiter mine area make fencing wire and steel wire rope up to two inches diameter for mining use. Starting single-handed in Johannesburg, Mr. Prime, an Australian, now operates works of considerable magnitude—Prime's Wire and Gate Works—making wire netting in standard sizes of mesh and gauge.

All kinds of pipe fittings are produced by Mr. Charles Longmore. Henry Ford (the Ford Motor Co. of South Africa Ltd.) and General Motors both have assembling works at Port Elizabeth. At Johannesburg, J. Jenkins & Son are motor body builders on a large scale, while the M. & V. Paint Works are fully equipped for paint-making, and this applies also to the firm of Herbert Evans & Co. The Municipal Council assembles switchboards and similar electrical contrivances and operates a plating plant for treating switchboard gear; and Hubert Davis & Co. are makers of that class of goods. Three firms turn out spare parts for rock drills—a large item in that great mining area.

The manufacture of aluminium household ware was attempted, but the demand proving insufficient metal ceilings are made instead, with conspicuous success. Two other firms make metal ceilings. The Matham Tin Works specialise in "billies" for miners' use. At Pretoria cement works do well; in Germiston a concrete works make ornamental concrete and Monier pipes. Carbide for lighting the Rand mines is made, while acetylene gas for welding, and hydrogen-oxygen gas in cylinders are all separate industries. The spring and coir mattress industry cater for all demands; a pottery turns out fair household ware, and suit cases are made on a small scale. Grain and flour bags are made in mass, and the Gourock Rope Works convert the usual vegetable fibres into rope.

It will be seen that industries are being established in South Africa and are progressing. In Johannesburg the industrial area centres mainly in two streets. Keenly alive to coming industrial expansion the council has purchased a large area of land, provided it with water mains and electric power, and reserved the area for industrial purposes.

[While we print the foregoing practically as it left the hands of our correspondent, we ought to say that his information is far from exhaustive. He professes, indeed, to give nothing more than a hasty sketch. Many metal manufacturing enterprises now found in South Africa are not mentioned.—Ed.]

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Australian Market Prices

N.B.—The prices given in these columns are mostly those at which wholesale merchants are prepared to supply ordinary parcels to storekeepers, or other retail dealers. In a few cases we give the quotations of manufacturers or their agents. Preference as well as general duties are shown in the "Duty" column. The first rate is that on goods from the United Kingdom, and the second is the general rate on goods from foreign countries. "F" represents free, and "F 10 %" free from the United Kingdom and 10 % from other countries.

	Duty	Sydney June 28	Melbourne July 2	Adelaide July 1	Brisbane June 30
Pig Iron	20/. 40/	£	£	£	£
British		...	7 5/	...	...
Swedish		...	...	...	...
Lithgow		7 10/	7 5/	...	...
Newcastle		7 10/	7 5/	7 10/	...
Bar and Rod	44/. 120/	22 basis	English 21	21	22/10 basis
Australian		...	18/6	17 10/	...
Mild Steel	44/. 120/				
Bar		19 10/basis	19/ basis	19	18
Angles		19 10/	18	19 10	19
Tees		21	18	20 10	20
Hoops	F., 10%				
Black		20 basis	19 basis	19/6	21/ basis
Galv.		31/6 basis	35	33/6	31 10/
Galv. Corr. 24g.	20/. 60/	30/]	29 10/	28 15/	
Orb 26 g		28	30	30 15/	30 5/
"		29 10/	30		31 10/
Adams Mars		...	...	...	...
Phoenix Cr.		29 15/	30	28 15/	32
Galv. Plain 24g.	20/. 60/	30/]			
Queen's Hd.		30/	31	31 15/	33
Phoenix Cr.		31 5/	33	...	...
Fleur-de-lis		29 10/	...	31 5	33
Other		...	31 10/	...	43/
Sheet	F., 125/				
Black		27 basis	25 basis	26	26
Baldwins		B26, G34 5/ basis	26 10/	...	19
Plate	F., 120/				
Steel		18 basis	15 basis	15	15 10/
Girder		19/6	21	19	20/-
Fencing Wire	F., 120/				
American 8		18 5/	18 5/	..	..
" 10		19 5/	19 5/	..	...
Austra'n 8 Bl.		15 12/6	15	15 10/	16/
" 10 "		16 12/6	15 10/	16	17/
Galv. 8		17 17/6	14 10/	18 10/	18 10/
" 10		18 17/6	15 10/	19 10/	19 10/
" 12		20 2/6	18 10/	20 15/	20
Barbed Wire.	68/. 180/				
Amern. 12-g.		24	...	...	25 10/
" 14-g.		25 10/	...	...	26 10/
Austn. 12-g.		24 10/	23	24	25 10/
" 13-g.			24	25	26
" 14-g.		26	25	26 10/	26 10/
Wire Netting	F., 200/				
36 x 1½ x 17	per. ton		36 15/	36/	
36 x 1½ x 18			29	34/	New List
42 x 1½ x 17			49 10/	...	
42 x 1½ x 17		20%	41 10/	...	
42 x 1½ x 18		off	34	41/	10 to 15%
36 x 1⅝ x 17		list	35	...	
36 x 1⅝ x 18			28	...	Off List
36 x 2 x 18			22 10/	31/6	
36 x 2 x 19			20	25/6	
Nails—					
Horshoe	12/. 15/	2½% on list	to 1/lb. List	1/ less 10%	List Price plus 5%
" Austn.		...		...	
Wire	5/6, 8/				
" Austn.	or25%,35%	28/6 basis	20/ to 22/	24/6 to 35/	30/- basis
Roofing—	5/6, 8/				
Evenden		74/6 cwt.	65/cwt., 9/6	9/-	11/
Lead-head		...	...	...	44/
Block Tin	Free	293 10/	301	300	3/
Tin Plates, 28 x 20—	F., 10%				
I.C. Coke	28 x 20	112's 67/6	50/	112's 52/6	27/
I.X. Coke	56s	47/6	70/	...	42/
Pig Lead	Free				
Austn.		30	42	32/	37/10
Sheet Lead	10%, 20%	48/	50	45 15/	55/
Dampcourse		4½" 7/-			
2 lb.		4½" 10/6	48		
3 lb.		10/6 Roll	47		
Lead Pipe—	10%, 20%				
¼ to 2in. coils		48/	50	50 5/-	64/
Lengths to 5'		50/	52	54 10/	65/
Compo. ⅜" & up		53/	51	54 5/	78/
Copper—					
Ingots		...	70	97/6	10d.
Sheet	25%, 40%	1/6	1/7	1/8	1/8
Brass					
Sheet	25%, 40%	1/3	1/2 to 1/6	1/6	1/6

	Duty	Sydney June 28	Melbourne July 2	Adelaide July 1	Brisbane June 30
Zinc—		£	£	£	£
Sheet 9 to 18g (7 x 3 & 8 x 3)	25,% 40%	67 10/	62 10/ to 65	67/	65/ cwt.
Perforated	35%, 45%	4/6	7	...	5/6
Spelter	10%, 20%	32	...	54/	...
" Elec....		301.10/to 37	41 to 42	...	40/
" Brazing	25%, 40%	1/9	1/5	...	1/9
Bolts & Nuts—		½" ¾"	½ ⅝		
Cuphead 3"		75/, 59/	63/ 47/ 41/		
" 4"	35%, 50%	76/, 57/	61/ 46/ 39/	...	26/3 to 73/
" 5"		70/, 54/	56/ 43/ 37/		
" 6"		65/, 49/	52/ 39/ 35/		
" 6½" to 9"		61/, 47/	49/ 38/ 34/		
" 9½" to 12"		59/, 45/	47/ 36/ 32/		
Tanks, 400-gal.	Free	6 5/	4 10/		5
" 200-gal.		3 5/	2 5/		3
Tubing—	F., 10%				
Black, up to 3"		55 off list	55% off	58⅓off	List 45% off
" 3½ & up	27½		60% off	35 off	.. 5% on
Galv. up to 3"		50 "	45% off	46⅔off	.. 10% off
" 3½ & up	27½	...	tst. List	20 off	Less 10% off
Steam, up to 3"		40 "	37½% off	37½off	.. 5% on
" 3½ & up	27½	...	5% off	20 off	.. 25% off
Wr'ght boil.		...	10% on	..	.. 15% on
Explosives—	F., 5%				5/
Hall's C.C.	10%	1/-	10½d.	1/-	1/1
Curtis's		10½d	10½d.	11½	1/
Chilworth's		10½d.	10½d.	...	1/1
Sporting	15%, 25%	3/6, 4/6	2/9 to 4/6	3/6 to 4/11	3/6 to 5/
Diam. S'less		10/	8/ to 8/6	8/3 to 8/6	5/
Amberite		8/6	7/ to 7/6	6/9 to 7/6	75/
Blast'g Gel.	F. 5%	72/6	74/6	74/6	79/6
Gel. Dyna.		65/	66/	66/	71/6
Gelignite		56/ to 59/3	56/ to 59/3	54/6 to 58/6	62/ to 65/
Dynamite		51/ to 57	51/ to 57/	46/6 to 51/6	...
Detonators	15%, 25%	55/	55 to 60/	60/ to 85/	58/ to 102/
Shot—Chilled	5/, 6/	63/6	61	75/	90/
Australian		61/	56	...	...
Cyanide Pot.	Free	1/4	1/6	...	1/6
Quicksilver	Free	7/6	5/6	5/8	8/-
Sash Weights	35%, 45%	16/	22/6	16/6	18/6
Sheep Shears	F., 10%	62/6	62/6	60/	60
Cement—Impt'd	20%, 30%	25/ cask	21/6	22/6	21/ cask
Aust. (bags)		...	18/	7/4	6/6 bag
Plaster, Imp.	1/6, 2/c	37/6 K.W.	35/	47/6	50/ cask
" Aust.		Pixie 35/-	8/	9/3	18/ bag
Slates (20 x 10)	30%, 40%				
White Lead—	8/, 10/, or				
Imported	25%, 30%	70/	72/6	71/6	72/
Australian		62/6	65/	63/	66/
Zinc White	20%, 30%	...	70 to 100	...	72/, to 86/
Oils—					Colonial 56/
Linseed (raw)	9d., 1/		Drs.,		
Imported		R5/6	5/10	Drs., 5/9	5/3
Australian		C4/11 D5/11	C., 5/-	Drs., 5/6	4/7
Colza	6d., 8d.				
Burning		...	6/-	...	
Castor—	9d., 1/				
½-cases		C 6/3	6/3	7/	7/9
China	2s., 2/6	...	8/	...	...
Cotton seed	6d., 8d.	..	8/6 to 10/	...	10/
Kero.—C.O.R.	Free	..	13/	...	...
Laurel		13/	13/6 to 14/6	13/	13/6
Light of Age		13/	13/6 to 14/6	13/6	13/6
Pennant		13/	13/6 to 14/6	13/	13/6
Turpentine	F.,	6/3	6/3	6/-	6/-
Substitutes	½d., 1d.	3/	18/ per case	...	2/3
Shellac		3/	2/9	2/5	2/6
Whiting—	6d., 9d.				
English		9/	7/6	9 10/	£12 ton lots
Colonial		4/9	4/6	5/	...
Resin, G grade	Free	38/6	35	36/	37/6
Carbide—	80/, 150/				
"I X L"		32/6	25/6	29 5/	29, 7/6
Scandinavian		34/-	27/6	33 10/	33
Canadian		...	...	...	...
Japanese		...	...	...	...
Bluestone—	100/, 200/	...	...	...	...
Macclesfield		37/6	37/	...	40/
Australian		36(1 cwt c/s)	...	37/6	...
Japanese		...	...	...	
Stock. Tar, 42 g.	25%, 35%		1/5	...	
Woolpacks—	Free	...	...	...	...
42 x 11½		...	6/	5/9	...
54 x 11½		6/3	4/6	4/9	6/3
Cornsacks—	Free				
2¾ lbs. (Oats)		...	...	...	...
2¼ lbs		10/10½	10/6	11/6	13/6
Branbags	Free	9/-	8/6	8/6	9/ to 10/

Small buyers requiring credit for broken parcels must expect to pay more than prices here quoted.

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Business Register

If you correct them monthly by these pages you will have lists more up-to-date than any Directory. Some leading firms do this.

New South Wales

Firms Registered.

New State Stores, general storekeepers, Guyra; proprietors: R. Hall & Son Ltd.

Houlihan Bros., general storekeepers, Walbundrie; proprietors: William P. Houlihan and Leo M. Houlihan.

Haynes & Giffin, grocers and ironmongers, Forbes-street, Trundle; proprietors: William Haynes and Roy W. Giffin.

Hardy & Sons, grocers and hardware dealers, Peat's Ferry-road, Hornsby; proprietors: Thomas Hardy, Arthur S. Hardy, and Leslie York.

T. C. Davis & Co., hardware merchants, Parramatta-road, Burwood; proprietors: Thomas C. Davis, junr., and Phyllis M. Davis.

Company News.

Philips Lamps (Australasia) Ltd. have removed their business establishment for the supply of lamps and radio from 139 York-street to Midbrosco House, corner of Clarence and Margaret-streets, Sydney. The administrative offices have been transferred from Kembla Buildings to the same address.

Brandts Ltd. have been registered with a capital of £30,000 in £1 shares. Objects: To acquire and continue the business now carried on by Brandt Bros. Ltd. Subscribers: Robert A. Miller, Frederick B. Lawrence, James C. M. Bartels, Roland S. Harris, Boris L. Miller, Seth H. Cottam, and Albert J. Lewis. Reg. office: Sydney.

T. H. Marks & Co. Ltd. have been registered with a capital of £30,000 in £1 shares. Objects: To acquire and continue the business of general storekeepers now carried on under the firm name of T. H. Marks & Co., at Mudgee. Subscribers: Mary Marks, W. G. Marks, C. H. Clark, C. A. Smail, S. Marks, M. E. Marks, and Howard A. Marks. Reg. office: Mudgee.

Perfecto Engineering Co. Ltd. have been registered with a capital of £25,000 in £1 shares. Objects: To carry on the business of mechanical engineers, manufacturers of all implements and machinery, etc. Subscribers: George A. P. Weymouth, Harold M. Rodrick, Cecil F. Norris, Herbert P. Weymouth, Ernest G. B. Millar, Frederick Norris, and William F. Rodrick. Reg. office: Sydney.

Salmond & Spraggon (Australia) Ltd. have been registered with a capital of £50,000 in £1 shares. Objects: To acquire and continue the business of Salmond & Spraggon (Australia) Ltd. (in liquidation). Subscribers: Percy Spraggon, Owen Haviland, Percy F. Horley, Ronald J. Chudleigh, Reginald W. Graham, Edwin Salmond, and John S. Wilson. Reg. office: Sydney.

Spiral (Patent) Standard Steel Co. Ltd. have been registered with a capital of £100,000 in £1 shares. Objects: To acquire and continue the business of the Spiral (Patent) Standard Steel Co. at Newcastle. Subscribers: Alexander Arthur, Frederick G. Catterall, Murdock S. Armstrong, Leslie Wallace, Francis W. Rothery, John H. Amos, and James B. Williamson. Reg. office: Sydney.

Stoddart & Hayward Ltd. have been registered with a capital of £30,000 in £1 shares. Objects: To acquire and continue the business of importers, merchants, and general storekeepers carried on by Stoddarts Ltd., at Manilla. Subscribers: Charles F. Hayward, Henry Stoddart, John C. Turner, Iris I. Peake, Laura H. Stoddart, Walter Jackson, and Edward O. T. Bowman. Reg. office: Manilla.

Universal Non-Glare Lighting Systems Ltd. have been registered with a capital of £25,000 in £1 shares. Objects: To carry on the business of manufacturers, producers, suppliers, and distributors of lamps, reflectors of all kinds, etc. Subscribers: George S. Holburn, George D. Ross, William J. Jarvis, Winifred J. Stuckey, Harry R. Andrews, Ruth Sterling, and Richard G. Gardiner. Reg. office: Sydney.

Peace & Peace Ltd. have been registered with a capital of £5000 in £1 shares. Objects: To acquire and continue the business of sheet metal workers, motor body builders and painters, carried on at 331 Riley-street, Surry Hills, under the style of Peace & Peace. Subscribers: Leonard M. Peace, Neil H. Peace, Nina Peace, Victor J. Peace, Colin D. Peace, William K. Coughlan, and Oscar J. McGregor. Reg. office: Sydney.

E. G. Vaughan Ltd. have been registered with a capital of £5000 in 4875 ordinary £1 shares and 2500 1/- employees' shares. Objects: To adopt a reconstitution agreement, and to carry on business as merchants, traders, commission agents, etc. Subscribers: Edward G. Vaughan, Robert N. Henderson, Arthur T. Hockings, David C. Molden, Arthur N. Johnson, Laurence W. Taylor, and Hubert W. Chedgey. Reg. office: Sydney.

New Zealand

Company News.

Marvel Washers Ltd. have been registered with a capital of £400 in £1 shares. Objects: To deal in machines for washing clothes and incidental. Subscribers: J. W. Miles, V. H. Sanson and G. Miles. Office: Hamilton.

Electric Direct-Drive Separator Co. Ltd. have been registered with a capital of £6000 in £5 shares. Objects: To carry on the business of manufacturers and importers of cream separtors and of all articles used in the manufacture, maintenance and working thereof. Subscribers: J. I. Wright, A. Botting, W. Allan, H. W. R. Outram, R. G. Corlett, H. O. Corlett and Alice E. Everett.

Philips Lamps (N.Z.) Ltd. have been registered with a capital of £10,000 in £1 shares. Objects: To carry on the business of electricians, manufacturers and sellers of and dealers in and agents for all kinds of electric lamps and general incidental. Subscribers: Philips Lamps (Australasia) Ltd., T. S. Weston, and S. J. Castle. Office: Fourth Floor, Hope Gibbons Buildings, Courtenay-place, Wellington.

Queensland

Garden Tool Co. (George H. Laidlaw), importers of hardware, etc., Laidlaw Building, Grey-street, South Brisbane, announce that Norman B. Skyring has become a member of the firm.

Lupton Stove Works, Lupton & Co. (Arthur B. P. Lupton, Stanley R. W. Lupton and Albert H. I. Lupton proprietors), stove and range manufacturers, Stanley-street, South Brisbane, have dissolved partnership and the firm name has been abandoned.

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Firms Registered.

U. & W. Gray, general storekeepers, etc., Al Arish; proprietors: Victor T. Gray and Winifred A. Gray.

Garden Tool Co., importers of hardware, etc., Laidlaw Building, Grey-street, South Brisbane; proprietor: George H. Laidlaw.

M. Jensen, general storekeepers, South Kolan and Bingera; proprietors: Marten Jensen, William Metcalfe, Thomas Cook and Arthur Nielsen.

Company News.

Vacuum Oil Co. Pty. Ltd. announce that the capital of the company has been increased to £6,000,000 by the creation of 300,000 new ordinary shares of £10.

Shopkeepers Ltd. have been registered with a capital of £10,000 in £1 shares. Objects: To establish and carry on a business or businesses for the purchase, sale and distribution of all kinds of general merchandise, drapery, ironmongery, provisions and other articles and commodities, etc. Subscribers: Walter C. Young, Walter J. Whittick, Fitzherbert Whitby, David B. McGregor, Frank Clark, Alfred W. Watson and Alexander M. Paten. Reg. office: E.S. & A. Bank Building, Little Roma-street, Brisbane.

South Australia

Adelaide Gate & Fence Co., manufacturers of gates and fences, 18 Lowe-street, Adelaide, announce that Louis Banfield and Albert Arnold Banfield have retired from the firm.

Firms Registered.

W. R. Rowe & Co., general storekeepers, Port Lincoln; proprietors: Cecil Escott Rowe and Margaret Renee Rowe.

Oldfield & Co., hardware merchants, 106 Henley Beach-road, Mile End; proprietors: Walter Dennes Oldfield and Ruby Dent Oldfield.

Tasmania

Firms Registered.

F. & S. Hunt, storekeepers, Blackwall; proprietors: Sydney M. Hunt and Ferdinand J. Hunt.

Rapp & Estcourt, storekeepers, Dover; proprietors: William John Rapp and Alfred Verrall Estcourt.

Victoria

Henry Rae has succeeded W. H. Wingfield & Son, storekeepers, Boort, and is carrying on the business under his own name.

Auto Castings, manufacturers of fine castings, 370 Dryburgh-street, North Melbourne, have been registered under the Firms Act; proprietor: Charles Bowie Dawson.

Company News.

Miller & Co. (Machinery) Pty. Ltd., iron, machinery and general merchants, etc., have been registered with a capital of £100,000 in £1 shares. Subscribers: Herbert James Thomas and Elsie May Thomas.

T. C. Jackson & Co. Pty. Ltd., traders in travelling bags and trunks, etc., have been registered with a capital of £20,000 in £1 shares. Subscribers: Martha Ann Jackson, James Jackson and Charles William Jackson.

Metal Stampings Pty. Ltd., general tinsmiths, engineers, etc., have been registered with a capital of £10,000 in £1 shares. Objects: To acquire as a going concern the business carried on by George Gilbert, at 54a Canning-street, Carlton. Subscribers: George Ramsay and George Gilbert.

The Hydraulic Power Press Ltd., general manufacturers and contractors in sheet metal, notify that as from June 10 last the business will be conducted under the name of the original company, namely, the Hydro-press Co. Pty. Ltd. The address will be, as formerly, 146-64 Burnley-street, Richmond.

Moulden Spring Works Pty. Ltd., spring manufacturers, etc., have been registered with a capital of £10,000 in £1 shares. Objects: To acquire the business carried on by John Leslie Moulden. Subscribers: Albert Edgar Chessell, John Pender Thomson, John Leslie Moulden and John Russell. Reg. office: Gaffney-street, Coburg.

McLoughlin & Co. Pty. Ltd., furnishers, warehousemen, ironmongers, etc., have been registered with a capital of £3000 in £1 shares. Objects: To adopt an agreement for the acquisition of the business carried on under the style of McLoughlin & Co. Subscribers: Henry Vivian Cole and Sylvia Rosalie Cole. Reg. office: 328 Flinders-street, Melbourne.

F. R. Quinton Pty. Ltd. have been registered with a capital of £5000 in £1 shares. Objects: To purchase the electro-plating and manufacturing business carried on by Frederick Robert Quinton, at Steel-street, North Melbourne. Subscribers: Frederick Robert Quinton and Thomas Townsend Cosgriff. Reg. office: Steel-street, North Melbourne.

Brandt Bros. Pty. Ltd., hardware and general merchants, and sheet metal workers, have been registered with a capital of £25,000 in £1 shares. Objects: To acquire as a going concern the business of Brandt Bros. Pty. Ltd. (now Brandt Investments Pty. Ltd.) at 338-340 Elizabeth-street, Melbourne. Subscribers: Leopold Caro, George William Caro, and Alfred Herbert Harrison.

Stromberg-Carlson (Australasia) Ltd., manufacturers and importers and exporters of electrical or mechanical goods, etc., have been registered with a capital of £50,000 in £1 shares. Directors: Leslie Percival Reed Bean, Norman Stanley Gilmour, and Norman Clive Oakes. Head office: 72-76 William-street, Sydney, N.S.W. Agent in Victoria: Henry Giles Small, 386 Post Office-place, Melbourne.

Baldwins & J.C.M. (Australia) Pty. Ltd., manufacturers, general merchants, etc., have been registered with a capital of £450,000 in £1 shares. Objects: To acquire the businesses carried on in Melbourne, Sydney and elsewhere in Australia by Baldwins Ltd., and Richard Johnson, Clapham, and Morris Ltd. respectively. Subscribers: Hugh Edward Poynter and Hill Willson Mackisack. Frederick Emile Stokoe, Herbert Leslie Bruce, and Eric Whitehead Crooke are also directors.

Taking up the combined products of the two manufacturing firms, the new company will handle Baldwin's "Phoenix Crown" corrugated and plain galvanised sheets; "Panteg" black steel sheets; silver bright and copper soft sheets for motor work; black sheets and black plate for stamping and enamelling; "Kemys," "King's Dock" for deep stamping, and "Galles"; special deep stamping quality tinplates; "Wilden" and "Cookley" best quality tinned sheets; genuine lead-coated sheets, and other Baldwin brands of tinplates and black sheets for all purposes; Port Talbot plates, rails, channels, etc.; Richard Johnson & Nephew's wire and wire products of all descriptions; and "Brickstor" for reinforcing brick work.

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Machinery

Disc Grinding Wheels.

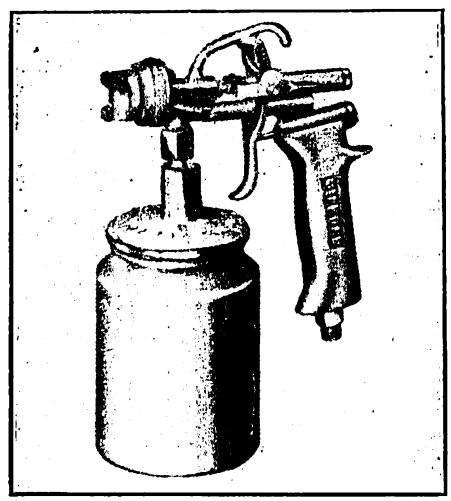
The Sterling Grinding Wheel Co., of the abrasive division of the Cleveland Stone Co., Tiffin, Ohio, U.S.A., have perfected a full-dimension disc-grinding stone to be sulphured direct to the plate.

Several claims are made for this type of grinder; as the disc is thicker it will last six or more times as long as the usual paper disc, and when it does finally wear out, a new one can be fitted within 15 or 20 minutes. Because the disc is sulphured in place, it is said that delay due to cleaning the plate is eliminated, and the stone sets in a few minutes. This sulphur bond is said to be very tight.

New Paint Sprayer.

The Alexander Milburn Co., of 1416 West Baltimore-street, Baltimore, Md., U.S.A., have introduced a 3-in-1 spray gun adaptable to all classes of work. As the name implies, it is a triple-purpose gun with siphon feed, pressure feed or gravity feed spray.

A multiple-head adjustment permits either a flat, fan spray in either a horizontal or vertical position, or a round spray if so desired. It is claimed that the atomization is so fine and even that "orange-peel"



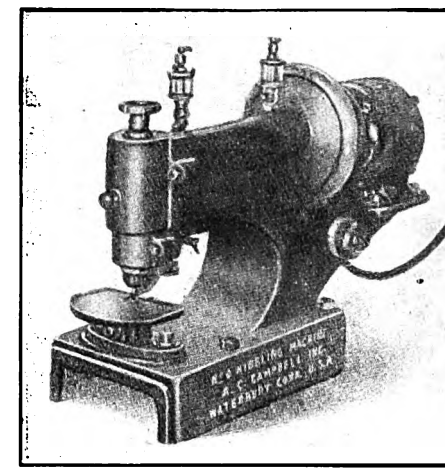
effects are entirely eliminated; rubbing and sanding being minimized. The spray can be so finely adjusted that it can be used for touching-up, shading and high-lighting. An air-pocket, formed by the fan-shaped nozzle, completely surrounds the atomized spray and thus lessens the loss of material through evaporation. When dusting is desired a trip lever is raised, completely shutting off the paint supply and allowing air only to function.

Accurate control of both the air and paint is obtained by means of a trigger. By pulling the trigger the paint flows to the atomizing chamber, is expanded and driven with ample force into the pores of the surface to be covered.

The device is of all-metal construction. A simple bayonet-type lock is used on the container, which is leakproof. Only three parts are in contact with the paint, and the complete outfit is non-clogging and easily cleanable. The spray gun is light but rugged and evenly balanced, with a natural handgrip for ease in manipulation.

Nibbling Machine.

The No. 0 bench-type nibbling machine has been added to the line of similar machines made by Andrew C. Campbell Inc., of Bridgeport, Conn., U.S.A.

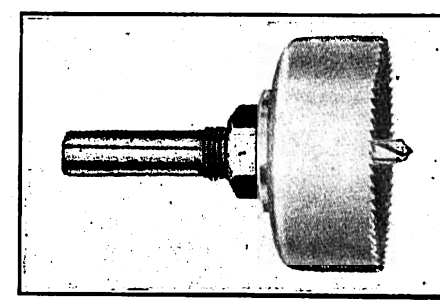


The machine can be furnished with direct motor drive or mounted on a floor stand. It has a capacity for cutting material up to 14 gauge, or $\frac{3}{32}$ in. in thickness. The throat is 8 in. deep, and the punch $\frac{1}{8}$ in. in diameter. With a normal operating speed of 950 strokes per min., the cutting speed obtained is 5 ft. per min.

A Hole Saw.

The Black & Decker Manufacturing Co., of Towson, Md., U.S.A., have introduced a circular saw for cutting holes of large diameter in metal faces.

It is designed for use in conjunction with this company's $\frac{1}{2}$ in. and $\frac{3}{8}$ in. portable drills. The cutter



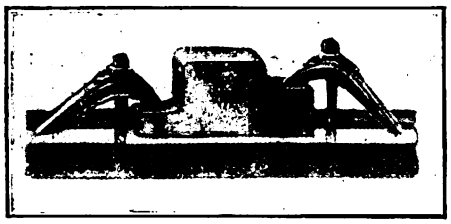
is made of high-quality saw steel, carefully hardened, and said to be strong and durable. The mandrel is designed to hold a $\frac{1}{4}$ in. twist drill, which drills a pilot hole and serves as a guide for the saw.

These hole saws are made in two sets. One is for cutting holes in instrument boards, as on automobiles, for mounting speedometers, and any other use where holes from $\frac{3}{4}$ in. to $3\frac{1}{2}$ in. diam. are to be cut. The set consists of five saws and two mandrels. The other set also contains five saws and two mandrels, but is intended for plumbers and steam fitters. It can be used for cutting holes in floors, partitions, tanks, and the like.

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Adjustable Strap Clamp.

The Billings & Spencer Co., of Hartford, Conn., U.S.A., are marketing an adjustable strap clamp for holding work on planers, borers, drills, lathes, and milling machines. Its design allows it to be



used on irregular shapes of various sizes without washers or shims. Where the work to be strapped is larger than the capacity of the clamp, it is only necessary to use a block no greater in height than the piece to be strapped.

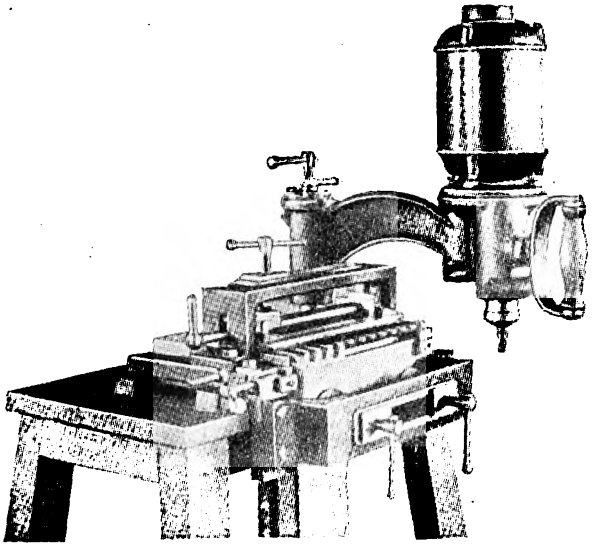
The clamp has only two working parts to be used in connection with a tie-bolt with which every machine is equipped. Since the position of the saddle can be easily changed, the tension between the T slot of the machine and the saddle (transmitted through the tie-bolt) is always at right angles to the table.

This device is hardened in oil and is finishd in its natural finish. It is made in three sizes.

New Dovetailing Machine.

Woodworkers will be interested in this dovetailing machine, which is sold at a very low price compared with the saving of labour and time effected.

The operation is one of the costliest when executed by hand, involving, as it does, the time and skill of an experienced tradesman. This dovetailer may be worked by the average boy, being simple



and speedy with perfect accuracy. Only one cutter is used, which travels at 6000 r.p.m., and yet is so constructed that repeated sharpening will not alter the original shape. The change over from one size dovetail to another is simple, and imitation hand dovetailing may be done by placing in the machine suitable form plates, obtainable at a slight additional cost. With this machine twelve to eighteen 6 in. drawers per hour can be made. The motor used is only ½ h.p.

The sole distributors are F. Leech & Co., of 308 Queen-street, Melbourne.

A D.C. Relay.

The Roller-Smith Co., of 233 Broadway, New York City, U.S.A., are marketing a new D.C. Relay, known as the type "S.R."

With a few modifications in each case the relay can be made to serve as a reverse-current relay, an overload, underload, or "closed circuit" underload, over-voltage or under-voltage relay. The scales are longer and the torque has been increased over former models, and the accuracy is said to be greater. The instrument is used in connection with a circuit-breaker.

The instrument mechanism has attached to its pointer a platinum spring contact that contacts with a similar piece carried by an adjustable pilot needle. The latter is set by a slotted head button projecting from the front of the case. The circuit set up by the buttons energises the electro-magnet that controls the relay switch and in turn the circuit-breaker.

The overload relay may be used to operate a signal and may also be used in connection with an under-voltage circuit breaker. The over and under-voltage relays have a voltmeter mechanism, and are connected across the line, while the over and underload relays function with a change in current.

Preparation of Surfaces for Japanning.

(From an exchange.)

In preparing metal parts for japan finishing, it is necessary that they first be thoroughly cleaned. A great variety of metal parts made of steel, iron, brass and aluminium are sent to the finishing room in the form of stampings, castings, and forgings. Stampings with folded seams are difficult to japan because the oil enclosed in these seams will boil out when the japan is baked on, unless previously removed.

The removal is accomplished by baking the parts in the same or another japanning oven at a slightly higher temperature than that for the japanning, or by using hot chemical compound solutions. The baking method is usually used for large parts. The small particles of oil and grease are said to crystallise on being heated, after which they loosen easily and fall off in the form of dust. Care must be taken to wipe off this dust even on the surfaces where a high finish is not required so that the dust will not be washed off into the japan. If the parts are allowed to get too hot they are likely to become warped, especially if they stand in piles. If this process is used on lead-coated metal which is acid-resisting the high heat is likely to cause the lead coat to disappear entirely or to leave small metal pockets in the lead-coated surface to which the acid adheres more readily than it does to uncoated steel.

The chemical compound method of metal cleaning is used for small parts that can be handled in bulk, but should not be used where solder is present. Benzine is also extensively used to clean surfaces, but it is injurious to the workman's hands. He should always wear rubber gloves for the latter process. Commercial sulphuric acid in diluted form will instantly remove surface rust. In using the acid process, the surplus acid should be immediately washed off in a hot water bath. The parts should then be plunged in an alkali cleaning bath and rinsed again after that. This sulphuric acid treatment should not be given until the japanner is ready to follow it immediately with a coat of japan.

Another efficient process for cleaning parts is sandblasting. Tests recently made showed that a constant pressure of 60 lb. per sq. in and a fixed distance of 8 in. with an angle of application of from 40 to 60 deg. were most efficient for this work.

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Paints and Painting Requisites

Buyers' Notes for Retail Dealers

Sydney

William Adams & Co. Ltd., of 175 Clarence-street, Sydney, have now full stocks of "Ferrodor" in twenty-four different colours besides cream, white and black. Contained in tins of 7, 14, and 28 lb., it can also be procured in 56 and 112 lb. drums.

Lewis Berger & Sons (Australia) Ltd., of Rhodes, Sydney, have begun the manufacture of several new lines since our last report, among which are "Proxcelin," a new process cellulose finish in varnish and enamel. Thirty minutes is the actual time of drying, the surface being hard enough to handle without damage after that period. Suitable for car work, it has found a ready sale. Motor gloss enamel is offered in seventeen shades, also in black and white, and the catalogued instructions suggest extreme care in its use. Rogers' brushing lacquer is introduced in eighteen colours. A product suitable for practically every use, and where quick drying is demanded, this brushing lacquer has established itself fully. Roof paint, waggon and implement paint, besides the usual large varieties of flat oil stains, floor varnish stains, enamels, and kalsomines, continue to find favour.

Borthwicks Pty. Ltd., of Elizabeth and McEvoy-streets, Waterloo, are making a special show of the "Borthwick" hood dressing for motor cars, and also of tyre paints. Mr. Alexander Borthwick has returned after a twelve months' tour of England and America, and is now applying several new ideas calculated to improve the plant. "Snowette" is a very popular mill white, and since its introduction twelve months ago it has maintained a steady demand. Other products of this firm are "Splendene," "A.B.," and "Yachtvar."

Brandt Bros. Ltd., of 236 Pitt-street, Sydney, have been appointed N.S.W. distributors for "Abo" products. The stock ready for delivery is a high-grade zinc paint, full-bodied, leadless and non-poisonous, and eminently suitable for all kinds of buildings either inside or out. Easy to apply and flowing freely, the paint does not show brush marks. It is made in twenty-seven different tints besides black and white, and the colours always correspond to any other tin bearing the same number. The covering capacity is approximately 1000 sq. ft. Gloss white, semi-enamel, white enamel, flat white undercoating are other "Abo" products stocked by this firm. "Aetna" lamps in all sizes and for which all spare parts can be supplied, are now to hand. Repair work is executed by this firm, who carry a full range of brushware and other tools.

Briscoe & Co. Ltd., of 383-85 Kent-street, Sydney, have augmented their already large stocks of popular branded paints with "Aluveneer," an aluminium paint suitable for gates, stoves, and all classes of ironwork which require a brilliant silver finish. It is obtainable in quarter, half, and full pint tins. "Our Favourite," a gold enamel for picture frames and other woodwork, is supplied in boxed sets. "Sapolin" stains of all colours, and the same brand in aluminium enamel is a very good line. "Solpah" paving paint is also a new addition, coming in one colour only—red. "Splendene" bath enamel in quarter-pint, full pint, quart, and half-gallon tins, is also being featured. Paint and varnish brushes of every variety are carried regularly.

Robt. Ingham Clark & Co. (A/sia.) Ltd., with which is incorporated William Docker Ltd., McCauley-street, Alexandria, have completed a modern plant for the production of paints and other covering compositions. The new lines manufactured by this firm, and which carry Docker's "Sun" brand, are of superior quality. They include mill white, a water paint of good covering capacity, combining sanitary qualities with durability and excellence of finish. It is an intense white for either exterior or interior use, is non-poisonous, and will neither rub nor peel. A feature is that it is washable whether mixed with oil or water. Impenetrable paint is a non-poisonouh high-grade product. It dries with a smooth surface and is very durable. "Nu-path" paving paint—a waterproof preparation for use on all cement work such as laundry tubs, garden paths, and floors—is made in six colours, is non-slippery, and does not require polishing. It dries hard with a glossy finish, and is not affected by the action of cement. Master painter's white is a ready-mixed oil paint of excellent quality, is an intense white, and can be worked easily. In conjunction with these four new lines this firm are kept very busy supplying "Britannia" brand paints and varnishes to the trade.

John Danks & Son Pty. Ltd., of 324-30 Pitt-street, Sydney, are making a special display of Berger's "Proxcelin," a new varnish and enamel addition to their paint department. The varnish is nitro cellulose dissolved in suitable solvents, and the enamel is the same varnish pigmented. The solvents are not like the liquids used in ordinary paints and varnishes; they are prepared from alcohol, and have a strong, pleasant smell. Suitable for the motor industry because it air-dries in half an hour and is hard enough in one hour to handle without damaging the surface, it can be supplied in twenty different shades, also in black and white.

Another new line is "Briko"—a preparation scientifically prepared from penetrating waterproofing ingredients. Its purpose is to close the pores of bricks or concrete, thus rendering them suctionless. Large stocks are now on hand. Most other brands are on the shelves, and the usual comprehensive range of painters' tools and other requirements is maintained.

De Meric Ltd., of 255 George-street, Sydney, are manufacturers of "Lignumvitol," a stain for household purposes either inside or out. In places where white ants are prolific, this preparation has been found to keep them down. Its covering capacity is about eight gallons to a five-roomed house for the first coat, the second requiring half the amount. For painting of floors one coat is sufficient, and after the surface is thoroughly dry it can be waxed, polished, or varnished.

Another type of paint manufactured by this firm is called "Dockyard" brand elastic carbon paint for shipping companies and engineering contractors. The paint is a quick drier, and is procurable in gallon tins, with good covering capacity. It can also be used on agricultural implements, pipes, fluming, tanks, sheep troughing, cisterns, boilers, tarpaulins, and cement work.

W. S. Friend & Co., of 113 York-street, Sydney, have in stock wood stains of Feast Watson and "Owl" brands, also "Zenith" and Tarbutt's well-known stainers. Always available are colours in oils and brushes and sash tools of all the best brands.

H. P. Gregory & Co. Ltd., of 74 Clarence-street, Sydney, are the N.S.W. agents for the "Binks" spray finishing equipment, and supplies are now to

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hand. All accessories can be obtained and repair work is carried out on the premises.

Grimley Ltd., of Monarch House, George-street West, Sydney, are N.S.W. representatives for "Tokiol," a product for automobile and general finishing where varnish is required. An imported article, it is quick drying, the surface is hard and cannot be ruffled or pushed, and furthermore will not soil or spot. This varnish cannot be flowed on and left to take care of itself like other finishing varnishes. A fair even coat must be brushed on. The varnish dries hard on the brush in a short time, so it is advisable to place the brush in oil immediately after use. As a metal primer it has been found thoroughly reliable, drying in three hours. Dark grey in colour, this is put up in gallon tins.

The sanding surfacer is another variety of "Tokiol." Very finely ground in paste form, this should be used as supplied for stopping, or thinned down with turpentine for filling coats. It is reputed to dry hard in five hours. Pink in colour, it is put up in 14 lb. tins. "Tokiol" sealer is suitable for slightly cracked, checked or unchecked touch-up and varnish work. All foreign matters are dissolved, and polishes that have been previously used are neutralised. Colour varnish may be applied over the sealer two hours after it has been put on. It is obtainable in quart tins. Black intensifier, which dries hard for rubbing in six hours and obtainable in half gallon tins, should be of interest. Colours ground in Japan, flatting enamels and finishing enamels, are other varieties of "Tokiol" which can be supplied in any quantities.

Hill Magill Ltd., of 131-33 York-street, Sydney, have full supplies of Borthwick's enamels in all shades, also the same manufacturer's dry colours. Berger's, Harland, "Thistle," and "B.A.L.M." are a few of the notable brands of paints and varnishes stocked by this firm. Painters' tools and brushes of all descriptions, together with knives and burning off lamps, are available.

S. Hoffnung & Co. Ltd., of 163 Pitt-street, Sydney, are now stocking "Chief" and "Q.D.E." branded mixed paints, and orders can be executed for any quantities. Fresh supplies of "Majora" products, also "Sapolin" and "Silvafros," are in complete assortment. Varnishes of all well-known makes are ready for delivery. Varnish brushes of "London" make together with "Rubber-tite" are in stock. Kent's oval and sash tools, "Challenge" whitewash and kalsomine brushes are continually in supply. "Excelsior" blow lamps are among other high-class brands stocked by this firm.

Holdsworth, Macpherson & Co. Ltd., of 252 George-street, Sydney, have ample supplies of "Sapolin" (American) varnish stains, also Muralo Co.'s "Calcimo" in all shades. New are Blundell & Spence's dry colours, and colours ground in oil of which large stocks are now to hand. Johnson's prepared wax in all sizes and wood preserving oils can be supplied in any quantities. "Victory" brand wool-marking oils, Stockholm tar, neatsfoot oil, and fly blow oil are other preparations in stock. Brushes and other tools suitable for all painters' requirements can now be supplied from augmented stocks.

S. C. Johnson & Co., of Queen-street, Rosebery, Sydney, offer the trade in wood dye a high-quality dye in either oil or spirit. Its penetrating influence is so great that the natural colour of the wood is not disclosed when it becomes scratched. For new work, oil shades are recommended; but where a quick job is required, the spirit shades should be used. Wood dye comes in seventeen colours, which can be easily lightened or darkened according to requirements. "Sani-Spar" varnish stains in natural, light oak, dark or golden oak, walnut and mahogany, are in full supply. Other varnishes suitable for all types of work can now be supplied in any quantity.

McPherson's Pty. Ltd., of 51-65 Bathurst-street, Sydney, have added to their stocks "Zincolead" paint for household requirements, and "Zincolead" roof paint. Being non-poisonous products with good covering capacity, this brand meets requirements. The household variety is in an excellent range of shades to suit all tastes, and is put up in 1, 2, 4, 7, 14 and 28 lb. tins, and also in pint, quarter, half-gallon, and one, two, and four-gallon tins. Supplies of "Primus" burning-off lamps are always on hand to meet the demand.

The Standard Paint & Oil Co. Ltd., of 255a George-street, Sydney have ample supplies of "Chief" brand paint, which is composed of white-lead, white zinc, linseed oil, pure pigments, and the necessary driers. It can be obtained in pints, quarts, half, one, two and four-gallon tins. "Botanite," a powerful bituminous compound which is unaffected by acids, cyanide, ammonia, sulphurous fumes, or extremes of temperature, is also stocked.

The Sterling Varnish Co., of Huntley-street, Alexandria, are manufacturing a new finishing body lacquer which they brand "Sevac." It is a non-scratchable and lasting preparation. A feature of it is that it dries in four hours, enabling two coats to be applied in one day. It can be applied to motors as well as for general household purposes, and has not the objectionable odour that is evident in some other lacquers. For marine work also it is confidently recommended. It is put up in quarter and half-pints and quart tins.

"Golglos' is another new product from this factory. It does not discolour after being exposed, and can be kept for any length of time without fear of depreciation. For picture frames, baskets, leatherware, and other such goods it comes in 2 oz., 5 oz., half and one-pint. "Art-A-Fec," a varnish stain for furniture, and "Homolac" polish, a quick-drying spirit varnish stain, are popular lines. "Ev-a-Dry" is an almost water white thin solution for applying to brick, cement, or iron, and its purpose is to make them waterproof. Sterling "Home Paint" is a prepared zinc product with a good covering range. It is ready for sale in 5-gallon drums, also in one-gallon down to half-pint containers. Other brands are "Artisan" and "Rex." Owing to rapidly increasing business, it has been found necessary to enlarge the plant and put up new brick offices.

Taubmans Ltd., of Mary-street, St. Peters, Sydney, are putting on the market yet another covering composition. "Fascinac," as it is listed, is a new brushing lacquer that possesses many appealing features. It is easy to use and practically no preparation of the surface is required before its application. It is adapted for use on any article, and dries with a smooth, hard, half-lustre in ten minutes. The convenience of being able to decorate a piece of furniture and then use it immediately after should popularise this line. "Fascinac" will be available in a range of eighteen colours, and also in clear for use on floors or linos.

Another new product is "Gransetta," a water flatted oil paint. Its features are extreme covering and free flowing properties, hard drying, and durability. It is more than washable, for after allowing a few days to harden, it defies even scrubbing with a hard brush, making it suitable for outside use, and kitchen and laundry walls. "Silvafros" is now being used on interior walls and ceilings of factories, and by its high reflectivity of light is helping to make working conditions more pleasant.

The Wadadjerie Silicate Paint Co. Ltd., of 15 O'Connell-street, Sydney, are manufacturing a silicate paint which is stated to be suitable where corrosion and acid have to be withstood. It is a mixture of linseed oil and silicate and can be applied to cement or concrete surfaces, thus affording adequate protection against inclement weather. After applying one coat of this paint, ordinary paint can

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be employed for the finishing. In other directions silicate paint has proved of distinct advantage. In connection with ironwork, it has withstood corrosion successfully, particularly in a marine locality where the sea air eats into galvanised iron. The roof of a home can be painted without fear of the rain water which is run into house tanks becoming tainted.

Williamson, Croft & Co. Ltd., of 277 Castlereagh-street, Sydney, are now featuring the new "Valspar" brushing lacquer, a nitro-cellulose material suitable either as a primer or a finisher. The first and second coats can be applied with only ten minutes' interval between. It does not change its colour, nor will water, acids, or alkalies do it injury. Other "Valspar" products stocked in large quantities are, varnish stains, clear varnish, and enamel. These three products do not dry as quickly as the brushing lacquer, but their finish is excellent. A large assortment of blow lamps of Swedish make are in stock.

Melbourne

William Adams & Co. Ltd., of 521-23 Collins-street, Melbourne, agents for "Ferrodor" paint, carry regular stocks of all colours and in all sizes of containers. "Ferrodor" has long been used in Australia on constructional work, iron roofs, bridges, and all positions where the ravages of weather have to be considered. Its power of resistance to chemical and other fumes makes it useful in the vicinity of industrial towns, or where sea air is liable to affect the surface to be painted. It is non-poisonous, and prepared in shades which are suited to various purposes and situations.

Brooks, Robinson & Co. Ltd., of 59-65 Elizabeth-street, Melbourne, are representatives of the United Paint Co. Ltd., of Adelaide. Under the familiar initials B.A.L.M., this company market their white lead throughout Australia, and it is also the base of their ready-mixed paints. Of the latter there is a complete range for the trade, packed attractively in containers of all sizes. For special purposes a bridge and roof paint is made, suited to metal work of all kinds, in a series of standard colours.

The "United" brand of undercoating, specially prepared for painters, forms an effective groundwork for the application of finishing coats. This is supplied in white and three other colours, and in any desired quantity for the particular job on hand.

Amongst a host of pigments and preparations the company's carriage gloss paint is to meet the demand for a paint and varnish together. It is recommended for use on vehicles, farm implements, seats and chairs, giving a durable and attractive finish. Carriage gloss is put up in tins of half-pint, pint, and quart capacity.

For many years the firm have distributed "Calcimo," a cold water kalsomine for inside use. "Calcimo" is an excellent line for the hardware store. It is simply and speedily applied by the amateur, it spreads evenly and economically, and presents no difficulty in use. The several tints in which it is supplied enable the householder to select a suitable shade from the colour cards obtainable, and it is an inexpensive mode of brightening the home. It is marketed in packets of 5 lb. weight, one of which is usually sufficient for the average-sized room.

John Danks & Son Pty. Ltd., of 391-403 Bourke-street, Melbourne, are distributors of Berger's white lead and paints of every description, and carry full supplies of all these products. Originally established in London in 1700, Lewis Berger & Sons now cover a wide field, and to-day all their painting materials for this market are made in Australia. In addition to all the standard paints and pigments the company turn out many special preparations designed for the decoration of homes and furniture, both interior and exterior.

Berger's Structural and roof paint is now familiar to the trade and the public. It is useful for outside covering, such as barns, for metal work generally, and rough timber. A galvanised iron primer is supplied for undercoating, and this obviates the tendency of peeling and scaling which so often occurs when paint is applied directly to the iron. A series of varnishes and stains for household use meet every need of the buyer in this direction. For general purposes in the house one of the most popular lines is Berger's "Silverglo," which gives a silver finish to metal surfaces of all kinds, and is especially suitable for stoves, water pipes, bath heaters, and similar articles. It imparts a bright appearance to otherwise unsightly metal, and is not easily affected by heat.

Another preparation which has recently been marketed is Rogers' brushing lacquer. Used upon chairs, kitchen fixtures, and all woodwork, it dries instantly, and provides a speedy method of brightening up dull surfaces in the home or the office.

The firm are also distributors of the "Jaro" red oxide paint, which has recently been manufactured from Geelong earths. It is sold prepared ready for use, or may also be had in oil and in dry form. Since "Jaro" has been offered it has made considerable progress among paint users in Australia. One of the special features claimed by the makers is its protective value against climatic conditions. Outside jobs such as iron roofs, verandahs, bridges, and structural work may all be covered economically and effectively with "Jaro." Recently the plant used in the preparation of this line has been considerably enlarged. New machinery has been installed which ensures perfect grinding to eliminate grit.

The firm are strongly recommending a special pigment for those who require a water-mixed paint. This material is known as "Seagull White," and is also available in colours. The Bourke-street premises of the firm have lately been painted with "Seagull" in a buff shade which is most effective. Its weather-resisting qualities are emphasised by the makers.

Amongst the various painting materials is a dressing for motor hoods, "Unity" rubberised hood dressing. This is intended for the renovation of canvas covers of all kinds. Made in all standard colours, it is moderate in cost, and gives the hood a shiny finish which is said to be completely waterproof, and pliable.

All the accessories of the painting trade are regularly stocked by this firm. Linseed oils, putty, and turpentine in leading brands are here, and also the necessary brushware for all purposes. Berger's varnish and weatherboard brushes are recommended for use with their preparations. The "Handy" brush is made of black bristle, in 1 in. and 1½ in. sizes, and is suitable for small jobs in varnish, stain, and glue, when an inexpensive type of brush is asked for. For the tradesman there is a range of high-grade brushes of either Australian or British make, for every class of work.

W. & G. Dean Pty. Ltd., of Equitable-place, Melbourne, are distributors for Jensen & Nicholson (Aust.) Ltd., paint and varnish makers. Included in their products are many varieties of varnishes and lacquers for specific purposes, such as tarpaulin dressings, insulating varnish, tin printing, and many others.

An important preparation which comes well recommended is a sanitary metallic paint. This has an enamel-like finish and is claimed to dry well, and last for a long period, especially when applied over "Denswite," an undercoating pigment with a zinc base.

Other painting materials supplied include all colours, dry or mixed, stainers, enamels and var-

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nishes. For the decorating trade and tradesmen generally probably no concern is better known. Every description of brush and tool is regularly obtainable at the firm's warehouse, and unusual lines, not often stocked by the ordinary paint supply house, may always be found there.

G. P. Embelton & Co., of 579 Bourke-street, Melbourne, are Australasian agents for "Cementone" products, which are used as a permanent colouring for concrete or cement. Instead of applying a surface coating of colour, "Cementone" colourings are incorporated with the final "float" of cement, and thus form a part of the structure. An important point emphasised by the manufacturers is that "Cementone" does not impair the tensile strength of the cement. Detailed specifications are supplied as to the precise quantities to be mixed to secure a particular shade or tint.

Another material prepared by the same makers is a waterproofing liquid for exterior brick or cement walls. This is known as "Cementone" No. 4. Still another product is a concrete floor binder which enters into chemical combination with the cement, and prevents "dusting" by forming a hard surface.

Hawkes Bros. Pty. Ltd., of Geelong and Melbourne, have a large department devoted to paints and oils, and painting materials generally. Ready-mixed paints have become a daily necessity for the storekeeper, and the firm carry complete stocks of leading Australian brands in all colours, packed in attractive tins of various sizes. Prominent amongst this line is their own "Corio" brand, which carries their recommendation as to quality.

A good selection of Masury's paints in gold size has just been opened. There is also a number of useful household preparations which are steadily in request, such as "Ezywork" stains, which have proved most popular with the public; and Taubman's enamels and stains, while in "Corio" brand there are enamels and varnish stains in many varieties and shades. Aluminium paints for various home uses may also be confidently ordered, as these find a good market everywhere.

In the paint section there is a constant supply obtainable of all leading makes of white lead and red lead, of both English and Australian production, together with linseed oils. A line recently placed on the market is "He-O-lin" motor car enamel, and the same brand of two-process ready-mixed paint. Both these lines come with high credentials from England for household decorating.

Of painters' brushware there is always a large selection. Fresh stocks of Hamilton's "Gem" and "Perfection" varnish brushes are now on hand, while all the best-known numbers of flat, kalsomine, and whitewash brushes are shown. Amongst a fine array of tools for the painting and allied trades are included Christopher Johnson's putty knives, glaziers' and palette knives, glaziers' diamonds, and a host of accessories.

J. S. Kidd & Co. Pty. Ltd., of 410-12 Lonsdale-street, Melbourne, are distributors of the well-known "Mirror" brand paints, which are ready-mixed for use, and are guaranteed to contain nothing but genuine lead and zinc with linseed oil. Put up in tins of all sizes to suit buyers, "Mirror" paints are an excellent line for the retail store. Some thirty colours are provided, and any shade may be supplied upon application. The various varnishes for household use are available in this brand, while the enamels are also of proved value and sell well.

Another reliable range of paints and varnishes for all purposes is the "Sterling" make. A colour chart distributed by the makers reveals some dozens of different shades in home paints. Containers are well designed, and provide an appealing window or counter display. For the various trade users of paint and varnish a special preparation is obtainable for each purpose. Included in this category are French polish, white polish, patent knotting and brown hard spirit varnish.

Supplies of brushware are carried both for painters' and general use. Many fine lines of carded brushes, suited for home purposes, are very moderately priced, and in the handy method of mounting make a convenient counter display. For whitewashing, varnishing, and other uses many special brushes are shown by the firm which are within the reach of all and yet of quite good value.

Thos. Mitchell & Co. Pty. Ltd., of 360 Lonsdale-street, Melbourne, manufacture all painters' brushes, as well as a range of household lines of all grades. Under the "Victor" brand, the trade are offered varnish, paint, and whitewash brushes at a price to meet the public demand for a sound article which must also be within reach of the ordinary user. For the householder who has only an occasional job to do, it is unnecessary to buy an expensive brush. The firm have designed many articles to suit this demand. Modern machinery has enabled them to produce quite a good brush at a minimum cost. A special cement is now used to secure strength of setting, and the bristles are treated to ensure straightness of "lay."

A new thick varnish brush of high grade is finding favour with users. Supplied in sizes from 1 to 4 in., care is taken to produce a reliable line for the painter's use. In the good quality paint brushes the "Victor" brand is bound strongly and finished attractively. Here again modern appliances have assisted the makers in the past year or two. Methods of handling short bristles of high quality have so far advanced that "cut offs" which previously were sacrificed are now used, with a consequent lowering of manufacturing costs.

The firm are also suppliers of all paints and oils, putty, turpentine, and driers, and all the accessories of the painting and decorating trade. Leading British and American makes of glaziers' knives, putty knives, and other hardware lines used by the trade are on the shelves.

George Russell Pty. Ltd., of 452-60 Flinders-street, Melbourne, are Victorian distributors of Sherwin-Williams paints and preparations for all purposes. The aim of these makers is to provide materials prepared in a scientific manner, so that the user may rely upon having his paints uniform in colour and consistency at all times. The factory claim that however careful the tradesman or the user may be in grinding and mixing, he cannot compete with the machine in accuracy.

For buildings, inside and outside, these manufacturers have a large range of paints to meet each particular case. Some fifty definite shades are provided, with the necessary undercoatings and finishings. In addition to the regular prepared paints, various S.W. preparations are sold in convenient cans for home use. For floors, furniture and metal there are the several stains, varnishes and other covering materials suitable to the purpose. Amongst the different lines in this department perhaps one of the most handy and useful for the storekeeper to stock is Sherwin-Williams silver paint. It is recommended for painting tyre rims, radiators, number plates, and other parts of motor cars, and also for stoves, heaters of all kinds, water pipes, and other metal surfaces. Silver paint has been designed specially to withstand great heat, as well as to bear constant washing, and so may be used on kitchen ranges with confidence. Another use to which it may be put is the protection of galvanised iron. It is claimed that on many iron roofs the silver paint has effectively prevented rust, even in the overlapping edges, which are so prone to corrode.

Another preparation which has recently been sold extensively is Rogers' brushing lacquer. This is suited for household use, on articles of furniture,

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fixtures, shelves, linoleum, and the hundred and one things which require "freshening up." It is a celluloid preparation, somewhat on the same lines as the lacquers used for motor car bodies. A great feature is that it dries almost instantly. It involves no risk of injury to clothes, and has no tendency to stickiness.

Tarsene Pty. Ltd., of 81 King William-street, Fitzroy, are manufacturers of "Tarsene" paint, which is suitable for every requirement under every condition. Made from a coal-tar base, the constituents are specially treated in the factory, and the makers emphasise the protective qualities of their product under most adverse conditions of weather or heat. Excellent results are reported regarding its use in places close to the sea, the salt air leaving it unaffected.

The materials upon which "Tarsene" paint is used are various. Wood, stone, cement, iron, glass, canvas, and paper present no difficulty so far as the adhesive and covering power are concerned. It is useful on greasy or smoky surfaces, covering and drying quite efficiently. The packing is in all-sized cans and containers, of any colour or shade, and the company are able to make up a special paint for any given condition, or to meet any particular problem.

Eliza Tinsley Pty. Ltd., incorporating the coach department of Alexander Mair & Co. Pty. Ltd., 640-652 Bourke-street, Melbourne, are the representatives of Hadfields (Merton) Ltd., the manufacturers of "He-O-Lin" paints and enamels. These makers have for many years produced special lines which are well regarded by the trade in England and elsewhere. They are accustomed to supplying their paints and decorative enamels under a guarantee as to quality and appearance.

"He-O-Lin" finishing paint is made in eighty different shades, suitable for either inside or outside use. Its appearance is akin to that of enamels, drying with a glossy finish. The easy working qualities of this material are stressed by the manufacturers. A full coat may be given without requiring to be "laid off" finely as is the case with many coarser paints. Another line is the obliterating first-coat paint. Containing no lithopone, it is suitable for interior or exterior, and for baths and other articles. Especially is it recommended as a first coat for the finishing paint mentioned above, and the firm's H.L.T. outside paint. Where a flat finish is desired inside it may be used as the final coat. It is made in the necessary number of colours to form a suitable ground for every shade in which the "He-O-Lin" finishing paint is supplied.

Two kinds of enamel are manufactured by these makers—glossy and flat. The gloss enamel is intended for any situation where a fine appearance is required, and where water-resisting properties are essential. It is used in hospitals, public halls, baths and similar situations. The flat enamel dries to a matt surface, and is claimed to be washable and permanent. A feature of this flat enamel is that one coat may be applied to form the ground for the next if two coats are given. By a judicious combination of both glossy and flat enamels a semi-flat or semi-gloss effect may be obtained.

Hadfield's varnishes include those for all purposes, and are sold by numbers. They are obtainable for practically every class of work. The makers not only specialise in these individual purpose varnishes, but in their leaflets and literature directions are given how to obtain the highest results in each particular case. The various descriptive booklets issued by Hadfields may be had on application to the agents.

The firm also represent the various colours, undercoatings, and enamels made by C. A. Willey & Co., of Long Island City, New York. These include a complete range of colours and painting materials, especially for coach and motor finishing. Under the title of "Wilcolac," the makers supply the new nitro-cellulose type of materials for automobiles, in addition to the regular oil-base preparations. The former are applied with the spray gun, a process which represents the last word in this class of work.

John Zevenboom & Co., of 333-5 Elizabeth-street, Melbourne, are suppliers of paint brushes of all kinds. Apart from the usual requirements, the firm make many special articles for decorators' use, and for specific branches of the trade. Decorator and lining fitches, stencil brushes and stipplers, as well as bevelled flat sash tools are regularly stocked. Iron-bound tar brushes are short or long-handled and of various hairs and fibres as required. A range of plasterers' brushes are made in several different sizes. These are leather bound and nailed, while the three-knot pattern are bound with copper wire for greater strength and durability. For household trade many of the everyday lines of whitewash and varnish brushes are at competitive prices: in the tradesmen's supplies, however, the firm carry a large range of the highest quality goods, of superior fibre, and constructed and bound in the best style. A feature of all the firm's products is the finishing process applied to the handles of their brushes. This is a special varnish preparation which gives an attractive appearance to the cheapest article they turn out.

Paint Manufacturer Since 1765.

As makers of paint, Thomas Hubbock & Son Ltd., of Lime-street, London, date back to 1765. Their operations now extend to practically every market open to British commerce, their branches and agencies being found in every part of Britain, as well as in Australia, India, and other countries. The range of their production includes almost every class of paint and varnish. In addition to the white lead for which they are so well known, they also claim to have been the original makers of white zinc paint, and have in recent years perfected titanium-zinc white, which is principally composed of oxide of titanium. Long known to possess valuable properties in this connection, it has become a commercial possibility only in recent years owing to the discovery of an economical process for extracting it. This pigment has many qualities which make it most useful, chief of which perhaps is resistance to the sulphuric acid-laden air of large towns. Titanium white is prepared in the presence of free sulphuric acid, and for this reason it is claimed that it answers this requirement most effectively. Another important point in its favour is that it is non-poisonous.

This product, together with white lead and white zinc, are manufactured by the firm in their works at Ratcliff, London. Although this side of the business is perhaps the largest portion of the operations of the company, linseed oil boiling and refining is still a considerable department in the industry. In addition to the pale boiled linseed oil which is so familiar to the trade, a large plant is required for the refining of colza and other burning oils. The production of colours and varnishes is also a branch of the firm's activities.

Since the inception of the company it has been the practice of the principals to retain personal contact with the details of paint and oil manufacture. Aided by a technical staff, each member of the executive maintains this close association with the work of production and marketing.

The present chairman and managing director is Mr. Frederick J. Kensington, with whom are associated on the board of Mr. W. B. Christopherson, Mr. Arnold B. Christopherson, and Mr. F. G. E. Jones. The Australian and New Zealand representative is Mr. J. H. Hides, 34 Queen-street, Melbourne.

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Electrical Section

Notes from Melbourne

(By F.M.B. 23/209.)

For the first time since operations were commenced some few years ago, the State Electricity Commission expect to be able to show a profit which, though small, will be welcomed as an earnest of better things.

The Brunswick City Council obtain electricity current in bulk and distribute it to the citizens. Reduced rates which the council wished to introduce were objected to by the State Electricity Commission, and the matter is being tested at law.

"Radiators for the Winter—Refrigerators for the Summer" sounds all right theoretically or from the calendar standpoint. But in fact or practice it does not fit so well. Even now with the day at its shortest automatic electric refrigerators are being sold not only for households but for such commercial purposes as display counters, show-cabinets, soda fountains, and ice-cream cabinets. Sales of these are made during the winter months, so that arrangements can be made ahead for the installation at a time convenient for the purchaser. Winter is generally a slack time for cafes, and it suits proprietors of this class of business to carry out any alterations necessary during that period.

Electric refrigerators are often mis-termed "electric ice-chests." They certainly do the work of an ice-chest in keeping foodstuffs cool, but they also refrigerate and preserve foods. An ice-chest shows an average temperature of about 50 deg. Fahr., whereas the electric refrigerator is set at from 40 to 45 deg. Fahr. Not only so, but while the ice-chest has a varying temperature according to the amount of ice used and its melting into water, the electric refrigerator is automatically kept at a constant level. These things considerd, the two articles are not comparable.

Although present conditions are unfavourable for good business, speaking generally, everything points to success as far as electrical work is concerned. The various city houses are being brought more up-to-date, and a wide range of fittings and appliances are now obtainable. From movements made during the month, one gathers that the electrical exhibition to be held in September will prove a varied and attractive display. The whole trade is being interested, and visitors may expect something out of the ordinary.

Suburban ironmongers and country storekeepers who cannot carry large stocks of electrical goods should arrange with some city wholesale house to let them have supplies on consignment. In this and other ways co-operation might prove beneficial to all concerned—wholesaler, retailer, and customer.

Notes from New Zealand

(Specially Contributed.)

Manawatu-Oroua Power Board is out to gain the confidence and goodwill of the farmers, and for that purpose has inaugurated an emergency repair service available at any hour of the day or night.

Grey Power Board intends to investigate the possible sources of hydro-electric power in the district in accordance with a promise given prior to a recent loan poll. The results will be compared with the steam generation of power to enable the board to decide whether a hydro scheme will prove more economical than an extension of the existing steam plant.

The following loans for electrical purposes have been sanctioned by the ratepayers:—Whangarei Borough Council, for extending main reticulation, £4600. Central Power Board (Hamilton), for reticulation extension, Whangamarino S.R.A., £20,000. Wairarapa Power Board (a) for electrical extensions, Whangaehu S.R.A., £2000; (b) for electrical extensions, Waeraiti S.R.A., £500.

During the Electric Supply Authority Engineers' Conference, held in May, the following papers dealing with special applications of electric power were read:—Electrification of Hospitals, Heating of Tepid Baths, Off Peak-load Developments, Woollen Mills, Flour Mills, Electric Cooking, Quarries and Brickyards, Milking Plants, Dairy Factories, Water Heating, Flax Mills. The above papers will be printed, and as they are based on data gained from actual experience, should be of considerable use to electric supply authorities investigating load extensions.

"We have just completed what might be termed our most critical year, and I am pleased to say that it has ended with a credit balance of £1400. Our income from all sources last year was £49,796." This encouraging statement was made by Mr. J. A. Nash, M.P., chairman of the Manawatu-Oroua Power Board during the course of the switching on ceremony at Rangawahia during May.

He further stated that the board had erected 460 miles of lines, had 3551 lighting and heating consumers, 484 milking motors in use, 252 ranges, 257 industrial motors, 496 water heaters and 239 street lamps, and these numbers were being added to daily.

Hastings Borough Council has decided on the following reductions in electrical rates:—Ranges, as from May 1, flat rate reduced to 1½d. all round, in place of 2d. in winter and 1¾d. in summer. Pump motors, as from April 1, from 1¾d. to 1¼d. Shop lighting, from June 1, flat rate as at present of 8d. per unit, or, on application, 8d. until the consumption reaches the maximum demand multiplied by 30, instead of 45, as at present, and all over maximum 2d. instead of 3d. This rate to apply only to shops remaining open for business after community lighting is closed down. Where community lighting is used, the rate to be 7d. instead of 8d.

Auckland Power Board and also Waitemata Board are becoming increasingly anxious regarding the prospects for electricity supply next winter in view of the indications of a delay in the completion of the Arapuni hydro-electric scheme.

The Auckland Board has been making inquiries in the direction of securing a Diesel plant for temporary service, but nothing has been found which could be installed economically and in time for next winter.

The Waitemata Board has applied for an additional 300 kw. beyond the 1000 kw. contracted for,

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as it is considered that at least this amount will be required to meet demands. The proposed inauguration of a fleet of electric trolley buses for Takapuna is an additional factor in the anticipated demand.

Poverty Bay Power Board has been advised that the board's application for a further loan of £50,000 has been granted on the same terms as the previous loan.

At the end of March, 1926, the board took over the generating plant of the Gisborne Borough Council, and the first year's working in new hands has been eminently successful. The consumption has increased, current is now being supplied for domestic cooking and water-heating, as well as for lighting and heating, rates have been revised and after setting aside an adequate sum for depreciation the excess of income over expenditure amounted to £3305.

A very interesting survey of the electrical developments throughout New Zealand was given at the Electrical Supply Engineers' Conference by Mr. F. T. M. Kissel, Government chief electrical engineer.

The wonderful development of the Lake Coleridge scheme, he said, proved that as far as electricity was concerned, the public appetite grew with eating. The increase in demand on the Mangahao supply had been equally striking. In 1924 the demand was between 400 and 500 kw. When the 11,000 volt system was put in it grew to 10,000 kw. This year the load was already 19,420 kw., or 220 kw. above the nominal capacity of the station. When the Government took over the Horahora station, with a capacity of 6300 kw., from the Waihi Gold Mining Co., the peak load was only 3000 kw.; no public supply, however, was being given by the company. The load increased in successive years to 5000, 5800 and 7000 kw., and the plant continued to run overloaded until 1925, when two additional 2000 kw. generators were installed, bringing the nominal capacity of the station up to 10,300. At the present time, however, the plant was regularly carrying 12,300 kw., while the peak load went as high as 13,500 kw.

At Lake Coleridge a 15,000 kw. extension had just been completed and additional transmission lines for North Canterbury were on the programme. The Government had also undertaken a comprehensive survey of other sources of power necessary to meet the demands of Otago and Canterbury during the next few years. It had been decided that the Waitaki, one of the largest rivers in the South Island, second only to the Clutha and Waiau, should be the next development. This river, which drained three large lakes and a big part of the main divide, had a great advantage in that its flow was largely lake-controlled, flowing through Tekapo, Pukaki and Ohau, so that floods and the carriage of shingle were reduced and control of flow made easier.

In the North Island a third dam was being built at Mangahao, which would mean a considerable increase in storage and would enable large loads to be carried for a longer period than previously, if a particularly dry summer was experienced.

The Waikaremoana scheme in the Hawke's Bay district was now well under way. The intitial development comprised two units each of 16,000 kw. capacity. All the contract works were ahead of estimates.

At Arapuni, on the Waikato River, on the other hand, the foundations of the coffer dam had given great trouble, and occasioned a serious delay. Instead of being completed by August of the present year, the scheme was not likely to be in operation till the end of 1928. Consequently, power resources in the Waikato district would be fully taxed to tide over the interval.

Electricity in Agriculture.

Electricity can be applied to almost every function on the farm, whether in the house, stable, byre, dairy or field, and farmers all the world over are availing themselves in increasing numbers of this new means of lightening their toil and increasing their output.

An Electric Farm Exhibition held in the United States during 1925 included the complete electrification of a farmstead near Harrisburg, in Pennsylvania. Every form of electrical contrivance useful in house, barn, or farm was shown at work. In addition to heating and lighting equipment, the farmhouse contained cooking apparatus, an electrically-driven sewing machine, an electric refrigerator and a vacuum cleaner. The laundry had a pump, washing machine, mangle and irons, all worked by electricity. In the dairy were milking machines, churns, separators and coolers. Other apparatus exhibited included incubators and brooders, threshing-machines, clipping machines, a potato grader, silage cutter, grill and grindstone, concrete-mixer, buzz-saw, hay-baling press, fodder-shredder and corn-sheller.

In Great Britain 500 farmers were using electricity for light and power during 1926, as compared with 250 a few years earlier. In Devonshire, Yorkshire, South Wales, Ayrshire, and Fife, current is available for farmers, and they are using electric power for dairy work and in poultry sheds, as well as for hay-chaffing, corn-crushing, root-cutting, threshing and pumping. The Chester Corporation supplies electricity to a rural area between 60 and 70 square miles in extent. About 100 farms in the area are using electricity in the home for lighting, heating, cooking, ironing, vacuum cleaning, and water-heating, and on the farm for milking, crushing corn, cleaning and cutting roots, cutting chaff and hay, pumping water, and sawing wood.

Between three and four thousand Swedish farms are worked by electricity, which is used for milking and other dairy work; for threshing and delivering grain to stores and straw to ricks; for artificial irrigation; and for the heating of hot-beds without manure. The use of electricity on Swedish farms has made it possible to do the necessary work with fewer hands, but the impetus given to farming has tended to increase the number of persons engaged in agriculture, so that eventually employment has increased rather than diminished.

Throughout Germany and Switzerland the use of electricity for agricultural purposes is general. According to the agricultural census of 1925 electromotors were in use in 161,422 Bavarian farms, and of these farms more than 96 per cent. were from five to 125 acres in extent. In Switzerland it was estimated that in 1925 over fifty million kilowatt hours were used in agricultural districts, a consumption that represented fifty kilowatt hours per head of the rural population.

Other European countries are taking steps to develop their rural economy on similar lines. In Czechoslovakia an Act was passed in 1926 to facilitate electrification of agricultural districts, especially of poor and undeveloped mountainous areas.

Coming nearer home, the farmers of New Zealand are taking advantage in increasing numbers, of the water-generated electric current which the Government of the Dominion is placing within their reach. Electric milking-machines, for one thing, are now in use all over the country. At the end of March, 1926, the total number at work was 4856 and the yearly increase runs into four figures.

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Advertisers will kindly note that all alterations to Advertisements should reach us by the 25th of the preceding month.

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A Financier on the Outlook.

At the annual meeting of the Commercial Banking Co. of Sydney Ltd., the chairman of directors (Mr. George J. Cohen) referred to the Australian position in the following terms:—

"The outlook generally is not without its anxieties. The Southern States of Australia on the whole are experiencing only a moderate season, and some districts are badly in need of rain, while a large part of Queensland is still suffering from one of the most severe droughts on record.

"From time to time I have expressed grave concern with regard to lavish public and private expenditure in Australia, and we are particularly concerned at the growth of the time-payment system, which is pledging the future of many individuals to a dangerous extent. The rapid increase of our Australian public indebtedness from £457,000,000, equal to £92 per head, in 1916, to £1,013,000,000, or £167 per head ten years later, has been widely commented on, and is a matter to which serious heed should be given. The constant increase in this indebtedness, with consequent interest obligations, entails taxation to an amount which threatens to seriously retard the progress of the country.

"While we have no reason to doubt the solvency and prosperity of Australia, and realise that borrowed money is necessary for its proper development, it is certain that large and continued borrowing creates an appearance of affluence which is misleading. I wish, therefore, to join in the warnings which have been sounded, and to urge the need for strict economy in both private and public affairs, so that the expenditure of the community be kept well within its income. The result of persistence in any other course is surely obvious."

Big Salaries in America.

In "Twice Thirty," Mr. Edward W. Bok confesses that when at fifty-six he gave up the editorship of "The Ladies' Home Journal," he gave up with it a salary of $100,000 a year. His own sons, when they came to know this, expressed their surprise—not that he should have relinquished such a salary, but that he should ever have drawn it. Could a man really earn so much or was it a courtesy return? And Mr. Bok replies there is no such thing in commercial America as a courtesy salary. The men who receive big money earn every dollar of it.

"Of course, there is no practical way of computing, in dollars and cents, a man's earning capacity. A man demonstrates a certain value to the corporation by which he is employed, and that corporation fixes a compensation which it feels it can afford to pay him. More generally than not, this measurement is below rather than above his actual worth; that is, it is below the actual business which his management of his position brings to the corporation. For instance, I know an executive who receives a salary of $100,000 a year. If he were paid so small a commission as one per cent. on the volume of business which his particular department produces as a direct result of his vision and judgment, he would receive three times his salary. This man, therefore, most certainly earns his salary, and so it is with scores of other executives in large corporations who earn even larger salaries. There are a number of corporations that pay their president an annual salary of $150,000; there are at least two presidents that I know of who receive more than that sum.

"It is true that such salaries were little known a few years ago; entirely unknown twenty-five years ago. But the country has grown, and business has grown with the country. Large businesses must have not only at their head, but in charge of the various departments as well, men of largest calibre and safest judgment. This type of man is not numerous, and when found he can command an appropriate salary; in fact, he does not have to command; it is gladly and willingly paid him. But never is he paid more than he is worth. That much is certain. No business can afford to maintain an executive unless he represents an asset to the corporation."

Foreign Exchanges.

Foreign rates of exchange in London for cable transfer on the centres and dates indicated, compare as follows:—

Par.	—	—	July 21	July 25	July 28	Aug. 2
4.886	New York	Dols. to £	4.85⅛	4.85 15/32	4.86	4.85⅞
4.866	Montreal ..	Dols. to £	4.86 7/32	4.86 7/32	4.86 7/32	4.86⅛
25.225	Paris	Frcs. to £	124.00	124.05	124.10	124.01
35.000	Brussels ..	Bels. to £	34.93	34.93	34.92	34.93
25.225	Rome	Lire to £	89.31	89.30	89.25	89.30
12.107	Amsterdam	Florin to £	12.12	12.11⅞	12.11 7/8	12.11 7/8
12.107	Batavia ..	Gul. to £	12.12	12.12	12.12	12.11⅞
18.159	Stockholm	Kron. to £	18.13	18.12½	18.12½	18.12
18.159	Oslo	Kron. to £	18.79	18.80	18.80	18.80
18.159	Copenhagen	Kron. to £	18.16	18.15½	18.15½	18.15
20.43	Berlin	Gmks. to £	20.43	20.40	20.41½	20.42
24	Calcutta ..	Pen. to rup.	17 7/8	17 7/8	17 7/8	17 7/8
24.58	Yokohama	Pen. to yen.	23½	23 9/32	23⅜	23 7/16
*	Hongkong	Pen to dol.	24⅛	24⅛	24⅛	24

* Par depends on rise and fall in price of Silver.

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Editorial

The Competition of the Stores

The new president of the Ironmongers' Federated Association in Great Britain (the I.F.A.) is Mr. W. S. Nesbitt, principal of John Nesbitt Ltd., Manchester. His presidential address was a noteworthy utterance, a frank facing of difficulties and disabilities with at the same time a reasoned hope for the future of the trade and the country. Here, for example, are his views on a matter of interest to ironmongers the world over:—

"We are continually discussing what is described as the menace of the stores. We must recognise that the stores have come to stay, and must be regarded as competitors in hardware supplies, but we need not accept the idea that they have necessarily ousted us for ever from our old position as household suppliers. By steadfastly improving the quality of our service, and with due attention to good buying and reasonable selling prices, we should continue to hold the better-class customers as well as those less wealthy people who recognise that cheapness in first cost does not always mean true economy. Whether the big stores are a supreme danger to us or not, their methods, and the degree of success they have achieved, must give us cause for serious thought, and, so far as they can be copied, subject to limitations, it behoves us to do so."

America complains of the same sort of thing. Mail order houses and one-price stores have cut into the trade of the regular hardware dealer, and in some cases, are making his position untenable. Not only so but the trade is recognising like Mr. Nesbitt that the new order of things has come to stay. Of competition when it is obviously unfair complaint may still be heard. But the leading men have ceased to rail against these intruders on general grounds. The competition is there to be faced and fought, they feel, and they urge their fellow-tradesmen to gird themselves for the fray. They admit that in some cases the ironmonger invites or provokes competition. From the business standpoint he is not alive. His methods are out of date. A case is cited of a certain situation where an ironmonger found it impossible to make a living and closed down. One of the chain store proprietaries opened a branch a few doors from the vacated shop and selling practically the same goods made a signal success of it. How explain the difference? The newcomers dressed their windws, and rang the bell, and having brought the citizens to their shop, treated them with every courtesy and consideration when they entered it. Their goods may have been no better or cheaper than those of the ironmonger, but they sold them. They succeeded because they deserved to succeed.

In Australia and New Zealand we have the same problems and need a similar spirit. The department stores are with us to remain as far as one can judge. They are affecting more or less the business of every suburban dealer and country storekeeper. It is hard for the latter to see the business go past them, and harder still when money that should be reducing their outstanding accounts is finding its way to the city store. But there it is, and one of the questions that they have to ask themselves is how far their way of doing business is contributing to this end, an undesirable end from their point of view. The manner of some suburban dealers is enough to keep people out of their shops. They are casual and inattentive, sometimes brusque and even mean. In these days that sort of thing will not do. People are ready to "support local industry," but nearness alone is not a sufficient claim upon any person's patronage. Something more is needed. Going home on Saturday afternooons some of us are in the ahbit of buying fruit, and wou'd like to secure it at the local shop every time other things being anything like equal. In the city our requirements are quickly and courteously met, whereas if we leave it till we get to the other end of the line, we run the risk of having to wait for some minutes in a rather frowsy and smelly place —the vegetables are on one side—and then get inferior value for our money. What are we to do? Dealers can only hope to survive this city or centralised opposition by borrowing a shaft from the enemy's quiver, by keeping their places tidy and making their service pleasant and effective. Buying carefully and keenly and securing a quick overturn they should be able to approach the large stores sometimes in the matter of price and to score frequently on the ground of convenience.

Credit and the Farmer

Whatever it may be with other classes, farmers and graziers cannot help working on the credit system in some form. Usually or frequently they must have goods for which it is impossible or at least inconvenient to pay at the time. Their money does not come to them weekly or monthly like that of the city worker, but at longer intervals, when their products are sold. Meantime, speaking generally, they have to be accommodated by the merchant or storekeeper. They run accounts. But on what basis? Restricted or unrestricted? With a definite agreement or without?

Suggestive in this connection is the experience of a farmers' trading company in New Zealand. At the annual meeting of shareholders the chairman of

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directors referred to certain newspaper criticism of certain forms of credit and went on to defend the form adopted by his own company. He is thus reported:—

"I am only stating a simple truth when I say that all the directors entertained very grave doubts as to the wisdom of sanctioning the introduction of the time-payment system. It was only after very careful inquiry that it was decided to try the system, although in a somewhat tentative way to begin with. Regular monthly reports, revealing every aspect of the business, were insisted upon.

"After two years' experience the attitude of the board and management is most emphatic that, compared with the old system of giving credit in what may be termed the ordinary way of business, time-payment is the more satisfactory of the two, from the point of view of both the buyer and the seller. The great wonder to me is that this fact has not been recognised before. Have we not had this system of deferred payment in operation in this country for at least fifty years in connection with the settlement of our lands by the very early settlers? Then, embodying the same principle, we got the advances to settlers, where, without paying any deposit, money was advanced for definite long periods on the time-payment system. Speaking with an intimate knowledge of many of the difficulties of farmers today, I venture to say that 90 per cent. of those difficulties could be solved by the application of extended credit at a fair rate of interest; in other words, providing them with the necessary finance on the time-payment system.

"But consider for a moment the other system, generally called ordinary credit. The more I see of ordinary credit, the less I like it. For instance, a customer, perhaps well and favourably known to the merchant, buys goods on credit, say, for a month or some other longer period. I venture to say that in 99 cases in 100 the time stated, if any, is immediately forgotten until the merchant, looking for payment, sends a reminder. Then, perhaps, a small payment is made, only to be followed almost immediately by another purchase of a similar amount, or more, and so the customer's account continues to increase instead of being reduced as under the time-payment system. The merchant, having no bailment or other security, is left lamenting with no option but to wait until, as in a great many cases in recent years, the official assignee steps in and settles the account, which is seldom satisfactory to either party. Let me say that selling suitable goods on deferred payment and with proper supervision can be conducted on perfectly satisfactory lines, and so it has proved in our case."

Although the chairman is quite definite regarding the benefits of his system he leaves the outsider guessing just how it is applied. Is each credit purchase, however trivial, the subject of a separate time-payment contract or is there a general agreement setting out a maximum indebtedness and a minimum monthly payment? The former, we presume, although we are not sure. In any case it offers the supplier some security and gives him a reasonable return on the money thus locked up. Compare this with what obtains in some parts of Australia where the storekeeper is called upon to tide the farmer over long, lean stretches, even should the bank be asking this same storekeeper to reduce his own overdraft. The banks are refusing to finance dealers with anything like the old liberality. Are dealers to continue to carry their farming customers or will they adopt some such protective system as that mentioned above?

Industrial Relations in New Zealand.

An outspoken bulletin on the relations of capital and labour in New Zealand was issued early in July by the Economics Committee of the Canterbury Chamber of Commerce. To begin with it is pointed out that nearly three-fourths of the wage-earners of New Zealand are non-unionists and that for the remaining one-fourth or so alone elaborate and expensive arbitration machinery has been set up by the State. So far from mitigating it has rather accentuated the evils it was established to cure. "The tribunal of the Arbitration Court set up to secure industrial peace appears to have now but little success in achieving this aim. It operates continuously only over a part of industry where industrial unrest never was common and is unlikely to develop in the near future. Over that small part of industry where industrial conflict is more frequent, the Court has little influence in promoting peace, for the unions dispense with the Court's services at their pleasure."

Not only so, but the operations of the Court have promoted an undesirable rigidity in matters industrial. The minimum wage arrived at in this official fashion "has tended to become the standard wage and the efficient worker is usually degraded to the level of pay of the inefficient." Again the Court's awards frequently include every detail of industrial organisation which can be interpreted as a cause of dispute, and thus methods are stereotyped and efforts for improvement checked by official interference. As a result "much progress is cut off at the source and the development of improved industrial organisation owing to the stereotyping of methods is made unnecessarily difficult."

Where it is most needed, says the committee, this official machinery fails to work, and ought to be overhauled. "Unable to escape the effects it has been instrumental in creating, compulsory arbitration probably does more now to prevent them than to create better industrial relations." Voluntary conciliation might be allowed to take its place. Production being of paramount importance, "should be freed from all unnecessary hampering restrictions; it should be encouraged by all reasonable incentives. In particular it would be wise to avoid flat rates of wages wherever possible and to adopt methods of payment according to results. Such a plan recognises the variations in human capacity and develops efficiency. Probably even the most inefficient have nothing to lose by it; the great majority of wage-earners and employers both have everything to gain."

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Inquiry Column

TRADE INQUIRIES

During the month we have supplied answers to the inquiries indicated below. Firms with whom we have not already communicated who hold any agency connection with the firms, or handle any of the lines mentioned in this section, are invited to furnish us with particulars so that our lists may be complete.

Information Wanted.

Ovenware Similar to "Pyrex."—Name and address of agents wanted.

"Storm King" Petrol Lantern.—Name and address of firm stocking parts wanted.

"Swastika" Brand of Cabinet Locks.—Name and address of manufacturers wanted.

Albert Martin & Co., London (horse clippers).—Name and address of agent wanted.

Thomas Chatwin Ltd., Birmingham (stocks and dies).—Name and address of agent wanted.

Lehmann, Archer & Co. Ltd., London (stocks and dies).—Name and address of agent wanted.

"Cincy" Washing Machine (Boss Washing Machine Co., Cincinnati, Ohio, U.S.A.).—Name and address of agent wanted.

Felten & Guilleaume, Mulheim-on-Rhine, Germany (wire ropes and electrical equipment).—Name and address of agent wanted.

"Tamac Plastic," a fire-brick in putty form made by Donald McPherson & Co. Ltd., Manchester.—Source of supplies in Melbourne wanted.

Information Supplied.

Plumb's Axes.—Name and address of agent supplied.

"Federal" Stoves.—Name and address of makers supplied.

"Harvester" Stoves.—Name and address of makers supplied.

"Planet Junior" Garden Implements.—Name and address of agents supplied.

Tool Handles, "Blue Mountain" Brand.—Name and address of agent supplied.

Name Plates Stamped in Metal.—Names and addresses of makers in Melbourne supplied.

Joseph Tonks, Wednesfield, England (rabbit traps).—Name and address of agents supplied.

W. Canning & Co. Ltd., Birmingham, England.—Name and address of agents in Melbourne supplied.

Winchester Repeating Arms Co., New Haven, Conn., U.S.A.—Name and address of agent supplied.

"Rossda" Mortise Lock Sets. — Names and addresses of manufacturers and Melbourne agents supplied.

Lanterns and Lamp Glasses of German manufacture.—Names and addresses of agents in Melbourne supplied.

LEGAL INQUIRIES

Receipts in Advance.

A certain municipal council who owe me a refund send me by post a receipt form on completion and return of which I am promised a cheque. I must say—what is not true—that I have had the money and the person who witnesses my signature also professedly witnesses its receipt. Quite apart from the morality of the transaction I wish to know if this is legal.

A.—There is nothing illegal in this practice, but there is no obligation on the payee to conform with it. The form of the receipt used by municipalities provides that the payment should be witnessed by an officer of the municipality and this practice has been adopted to save payees paying a personal visit to collect moneys.

Lien on Guest's Goods.

Has the proprietor of a hotel or boarding-house, with an unpaid board bill, a prior lien on the boarder's goods, even when these goods are being purchased on a time-payment or instalment plan, and covered by a contract or agreement?

A.—A hotelkeeper has a lien on a guest's goods even though they may belong to some other person. A boarding-house keeper has no such lien.

Ad Valorem Duties of Customs.

What is the meaning of or reason for the 10 per cent. added to the price of certain goods before assessing the amount of duty which such goods ought to bear? Just why is it imposed or what exactly does it represent? (44/209.)

A.—It represents the freight and other charges incurred in bringing the goods into the country concerned—in this case the Commonwealth of Australia. Ad valorem duties are imposed on the value of the goods landed in the Commonwealth, not their cost at the port of shipment. The importer has to declare the fair market value of such goods in the country of origin, and the 10 per cent. is then added to bring the amount up to their fair value in the country of consumption, the country which levies the duty. In certain cases 10 per cent. may amount to more than the freight, insurance, and other charges involved in bringing the goods from port to port, while in others it may amount to less. Presumably, however, it represents a fair average, and is at any rate a convenient decimal readily applied in any and every case.

The 10 per cent. is statutory. Section 154 (1) of the Customs Act 1901-1926 provides that "when any duty is imposed according to value, the value for duty shall be the sum of the following:—

(a) (i) the actual money price paid or to be paid for the goods by the Australian importer plus any special deduction, or

(ii) the current domestic value of the goods, whichever is the higher;

(b) all charges payable or ordinarily payable for placing the goods free on board at the port of export and

(c) 10 per centum of the amounts specified under paragraphs (a) and (b) of this subsection."

And our interpretation of the statutory 10 per cent. was borne out by the High Court of Australia in the case Threlfall v. Matthew Goode & Co. Ltd. ("Argus Law Reports," vol. xxv., June 10, 1919.)

Delivering judgment in that case, Mr. Justice Barton said:—"The object of an ad valorem duty is practically explained by the term itself. It is a duty according to value, not value at some period more or less remote, but value at the time the goods come into the country which charges the duty. As it is difficult for the Customs authorities to assess, certain means are prescribed to help them. 'The value' in paragraph (a) is the value at the time of the entry required by paragraph (b), and it is directed to be made up of the fair market value in the principal markets of the country of export, the goods being placed free on board at the port of export, with the further addition of 10 per cent. on the fair market value. The more this is

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considered as a purely arbitrary process of reaching what may be called the arrival value, the less is it probable that evidence of value of prices at a period substantially anterior to the date of export is of much weight for the purpose."

And Mr. Justice Isaacs, for himself, Mr. Justice Powers and Mr. Justice Rich:—"The truth is that when a Customs duty is imposed on imported goods ad valorem, that means according to their value on arrival here. To secure uniformity of treatment and afford facility of arriving at the value for duty, sec. 154 enacts that two factors shall be ascertained, and their sum total shall be taken to be the taxable value of the goods. These factors are (1) the fair market value of the goods in the principal markets of the country whence the same were exported, in the usual and commercial acceptation of the term, and free on board at the port of export in such country; and (2) a further addition of 10 per cent. on such market value. Those two factors cover the one complete transaction of transferring the goods from the foreign country to Australia, a transaction which begins at the port of export and ends at the port of import. The 10 per cent. addition to the first factor is the assumed normal average cost of the transfer, and leaves to be considered only the true amount of the first factor."

Where goods are imported c.i.f.e. or at a price representing insurance (i), freight (f), and exchange (e), as well as cost (c) at port of shipment, the Australian practice is to deduct the ocean freight and other charges mentioned and then add 10 per cent. in lieu of the exact figures. As between shipment and shipment or importer and importer this is obviously the fairest method that can be employed, the only defensible method indeed.

Regarding the practice elsewhere, the Commonwealth Customs authorities have been good enough to furnish the following information—the latest on record at headquarters:—

"(a) In New Zealand, 10 per cent. is added to the home market value for cash at time of exportation;

"(b) In the United Kingdom ad valorem duty is payable on the c.i.f. value and landing charges without the addition of 10 per cent.

"(c) Although duty is payable in Canada and South Africa on the home consumption value in the country of export, the 10 per cent. addition is apparently not made;

"(d) In British India duty is payable on the wholesale cash price at time and place of importation less Customs duties, or, where such price is not ascertainable, the cost at which goods of a like kind could be delivered at such place, but not including duty."

In New Zealand, we believe, a 1 per cent. primage duty is imposed in addition to the 10 per cent. mentioned above.

Personal and Social

Staff Dance in Sydney.

There was a large attendance at the staff dance of the Australian General Electric Co. Ltd., Sydney, which was held at Sargent's ballroom, Market-street. Among those present were Mr. Maughan, the managing director, accompanied by Mrs. Maughan, Mr. A. Hedger (president of the organising committee), Miss Mansfield (hon. secretary) and Mr. Bayer (hon. treasurer).

Parting Presents.

Mr. Andrew H. Walker recently retired from the service of J. Murray More Pty., Ltd., of South Melbourne. Before leaving he was presented with a cheque from the management, and a pair of field glasses from the employees, these gifts being handed over by Mr. H. L. Swanton, the senior director. Mr. Walker is a member of the Commercial Travellers' Association.

Interstate Travelling.

Mr. Hugh Bragg, recently employed as city representative by Richardson Orr & Co., Sydney, has left that firm to join the staff of Mr. William J. Howatt, factory representative, 40 King-street, Sydney, as Interstate representative. Mr. Bragg spent his early days on the road in South Africa and ultimately held a responsible position in the diamond mines of Rhodesia. Being of a roving disposition he found his way to Canada and U.S.A., acting as representative in both countries for Cassidys Ltd., Canada. Leaving that firm about a year ago Mr. Bragg spent a short time in New Zealand before arriving in Australia.

Long Service Recognised.

On February 1 last Mr. A. E. Bradshaw completed fifty years' service with the Metropolitan Gas Co., of Melbourne. Joining the Collingwood Gas Co. as a junior in 1877, he passed automatically to the present undertaking when three gas companies united to form it on January 1, 1878. After filling various clerical positions, he was appointed cashier in 1888. Fifteen years later he became accountant, and in 1913 he received the additional appointment of assistant secretary. With the death of Mr. John Hinde in April, 1923, he became secretary, a position which he still holds. The board showed their thought of the man and the event by voting Mr. Bradshaw an honorarium of £525—ten guineas for every year of service.

This statement was made at the half-yearly general meeting of the company on July 28 by the chairman, Sir John Higgins.

Death of a Manufacturers' Agent.

The death occurred on July 2 of Mr. George Alfred Clare, who was for many years associated with the British General Electric Co. Ltd., Sydney, and subsequently carried on business on his own account as a manufacturers' representative. The funeral was attended by a large number of personal and business friends. Mr. Clare is survived by a widow and one son.

Death of Mr. T. I. Loutit.

After a short illness Mr. Thomas I. Loutit, secretary of Harris, Scarfe Ltd., Adelaide, died at his residence in Belair on July 16. He had just completed his sixty-first year, having been born at Gawler, in South Australia, on July 15, 1866.

Entering their service as office-boy, the late Mr. Loutit had been with the firm for the long period of forty-six years. He had experience in every department on the accounting side, and was appointed secretary in 1918, succeeding Mr. S. T. Thomas, who then became a director of the company. This confidential position he has filled with every satisfaction to the board. Mr. F. G. Scarfe, the senior director, speaks of him as "a loyal and faithful officer, a particularly able man in his position, and one whose place it will indeed be hard to fill."

About two years ago the late Mr. Loutit went to live at Belair in the hills some fourteen miles out of the city. Before long he was prevailed upon to become president of the Belair Progress Association. He leaves a widow and one son, Mr. N. M. Loutit, who is secretary of Yellow Cabs (South Australia) Ltd.

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Sundry Credits

By J. Knibb.

Cash Carriers.

Rumour has it that in one of our large cities several retail firms, hardware included, have been robbed by their own employees, or some of them. Not of goods, be it noticed, but of cash. Discovery came through the employment of a private detective agency who being given a free hand set their traps and landed their thievish victims. The numbers mentioned are astonishing. Once in the agency's hands the pilferer is worked upon until he tells just how far he has gone and agrees to make restitution. An agreement signed to that effect and guarantees provided, the self-convicted salesman loses his job and nothing more is said. A very pretty arrangement, but is it legal? The compounding of a felony is a punishable offence.

* * * *

"Half is Half."

Being a subscriber to a good private library I read many more books than I ever think of buying or have any desire to buy. John Ruskin condemns that sort of thing, I know, but most of us find it advantageous to borrow under such conditions. It has certain benefits undoubtedly. One of these, although a minor one, I admit, is that some previous reader may have been moved to record his criticism or protest in the margins. Again and again I have found it so. I do it myself on occasion. The book in my hands at time of writing is from the pen of a distinguished military officer who speaks in one place of "the larger half." This has evidently given offence to some critical reader whose marginal comment runs "Half is half; portion is meant." There!

* * * *

"Cut in Two."

Strictly speaking the critic is right. Half a pound is eight ounces not more nor less; half a carcase the carcase split down the back bone from snout to tail, not the head to the one party and the body (the larger half) to the other. But I am not at all sure that in ordinary speech we are called upon to be so precise. While avoiding the Scylla of slovenliness we are not to involve ourselves in the Charybdis of affectation. The precisians, moreover, are self-destructive, so it seems to me. They maintain that we should not say "Cut in two" but "Cut in half." You cannot cut a thing into twos or threes, we are told, but into halves or thirds. Very well. Here is a fine horse decapitated on the railway line. Let us hold a grammatical inquest over the remains. Has the beast been cut in two or cut in half?

* * * *

Missing the Point.

A good plan for the student with an examination paper before him is to spend a little time over the questions so as to grasp exactly what is asked. If he does not restrain his desire to be "at it" with the pen until he knows to a certainty what is required of him he will offer the examiners what is not required. It may be good material in its way, but it wasn't called for and therefore doesn't earn any marks. Many a student does himself injustice, I am satisfied, because in his hurry he misreads the questions. With a great many people, moreover, this fault persists all through life. How often in business does a correspondent give you an answer which is no answer at all because he has missed the point of your letter? It isn't that you are obscure, but that he is careless or impatient or something.

* * * *

Sound Speech.

More than once faulty speech has been a subject of animadversion on this page. Hence I am pleased to know that the matter is being taken up elsewhere. "Do-without Clubs" are being formed, I gather, among the public school children of Chicago—nothing to do with pork. Members promise to do without certain overworked expressions, and pledge their "loyalty to the American language." Something wrong here, I guess. Pledge their loyalty to the American language, and then proceed to abandon "say" and "sure" and all the others? Punk! Why these constitute the American language. As well speak of "Hamlet" without the prince. But, seriously, at the rate of one discard a week, which is the pace set by the sponsors, I wonder how long it will take these little Chicagoans to shed all the slang they have picked up round the canneries? O boy! They'll be old men before the task is finished.

* * * *

Metallic Members.

The iron jaw and the brazen face, the steel hand and the leaden foot—these are all figurative expressions with which poets and novelists have familiarised us. Even when the steel hand is enswathed in a velvet glove we know it isn't a real hand. But a real steel hand is a possibility. Not a steel hook like Captain Cuttle's, but a workable hand. The late Mr. Hudson Maxim had one. During an experiment with explosives he lost a hand, and the idea seized him that he might get an artificial member which would be more than a makeshift. Not being able to obtain what he wanted in his native America, he went to England and there found an artificer intelligent enough to work out his idea and even improve upon it. He was provided with a steel contrivance which enabled him to grasp and handle things, a contrivance which he wore thereafter during hours of work. Who shall wonder that this American thought highly of the British workman?

* * * *

Good Maxims.

Mr. Hudson Maxim was, I believe, a younger brother of Sir Hiram Stevens Maxim. Born in Maine, U.S.A., in 1840, the latter settled in London in 1883, and became a naturalised British subject. He is best known as the inventor of the Maxim gun described as "a single-barrel automatic machine gun, surrounded by a water-jacket, delivering 600 shots a minute, the recoil of each shot being utilised to fire the next." In the closing years of his life he devoted himself to aeronautics, and before his death in 1916 he had ventured into authorship. "My Life," an interesting autobiography, appeared in 1915. Mr. Hudson Maxim, who remained an American, was also an engineer and inventor, who occupied himself chiefly with high explosives. "Maximite" was one of his inventions in this field. Good Maxims did I say? Well, I'm not so sure. The Peace Society might apply another adjective to the authors of such lethal products as guns and explosives. We must remember, however, that many of their inventions were and are used for other than war purposes.

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Make the Advertising Pay

A Page of Hints and Helpful Criticism

Send Us Your Ads ∴ Let Us Solve Your Problems

Truth in Advertising.

"Truth, like the Sun, submits to be obscured,
But, like the Sun, only for a time."

Advertising is something akin to a great tree that has sprung from a tiny seed, and has grown and grown throughout the years, spreading its branches north, south, east and west, until it is indeed the monarch of the forest. The contemplation of its immensity almost overawes us, until we dread to think of what would happen if its very own weight were to bring it crashing to the ground.

"But," you say, "that is absurd; the giant tree has enormous roots with which to support and nourish itself. When its usefulness is done, other little seedlings will have grown to take its place. And so with advertising; new ideas and methods are constantly being evolved and taking the place of others that have had their meed of popularity."

To all of which we reply:—

Have you never heard of white ants?

Have you never heard of blight?

Have you never heard of bush fires?

In the past whole forests have been destroyed by such scourges!

And we say that the white ant —the blight—the bush fire—that is threatening advertising is untruthfulness and insincerity!

Not for one moment do we mean to suggest that all advertising is untruthful and insincere. On the contrary, we appreciate the fact that a very earnest endeavour is being made in influential circles to uplift the whole business of advertising to a higher plane. Nevertheless, it must be admitted that many very questionable claims and over-statement of values are published by unscrupulous advertisers; and, if not checked, such may shake public confidence to an extent that will be almost irreparable.

In these days of grace, advertisement-writing has been brought to so fine an art that the public look for it and read it with almost as much avidity as they do the daily news. For that very reason —if for none other—it behoves all whose business it is to write or publish advertisements to see that the public's confidence is maintained.

Was it not John Wanamaker who said, "If all advertising were believed and the goods of the value stated, stores could be made twice as large and business twice as good"? Coming from such a source, that statement is worthy of very careful consideration.

In writing advertisements, first make a thorough analysis of your product. State only the essential, giving due prominence to selling points according to their importance.

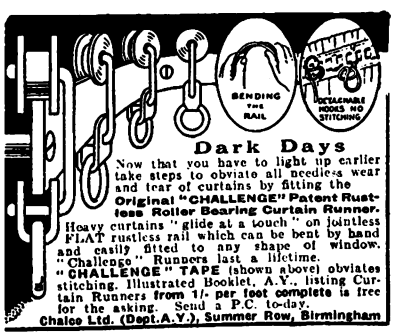
Be explicit and specific.

Be brief, but not inadequately so.

And be truthful—not only for ethical reasons, but because it is good business to do so. Remember, "the Sun submits to be obscured only for a time."

How Not to Do It.

Here is a splendid example of the unattractive advertisement.



To begin with, the illustration looks more like a barn-door hanger than a curtain runner; consequently it would not readily attract the housewife.

The heading, "Dark Days," is not a happy one; it is too vague—to say nothing of being a gloomy thought. There is so much interesting matter in the "copy" that a strong selling point could have been selected so easily.

For example:

SAVE YOUR CURTAINS
CURTAINS GLIDE AT TOUCH
RUSTLESS CURTAIN RAILS

AVOID CURTAIN WEAR

all would have attracted more attention than "Dark Days."

A Story Without Words.

Close Buyer—?????????
Printer —£££££££££
C.B.—!!!! !! ????
Printer—??????
C.B.—£££££
Printer.—***—!!?!!**—!!
—Reprinted from "Printed Salesmanship."

What Grocers Think.

At the fifth annual conference of office-bearers of the Victorian Grocers' Association, the followiing motion was unanimously passed: "That this conference requests the State Government to introduce legislation to prevent advertising calculated to mislead the public."

Mr. A. M. Johnston, who brought the matter forward, cited several cases where misleading advertisements had been published in the daily press and elsewhere. The goods were not what they were said to be, either in quality or weight or some other particular. Women and children were chiefly imposed upon by these untruthful descriptions and the practice ought to be suppressed. The mover read the following clause, which had been suggested by "Printer's Ink," in connection with fraudulent advertising:—

"Any person, firm, corporation or association who, with intent to sell or in any wise dispose of merchandise, securities, service, or anything offered by such persons, firm, corporation or asssociation, directly or indirectly, to the public for sale or distribution, or with intent to increase the consumption thereof, or to induce the public in any manner to enter into any obligation relating thereto, or to acquire title thereto, or an interest therein, makes, publishes, disseminates, circulates, or places before the public, or causes, directly or indirectly, to be made, published, disseminated, circulated, or placed before the public, in this State, in a newspaper, or other publication, or in the form of a book, notice, handbill, poster, bill, circular, pamphlet or letter, or in any other way, an advertisement of any sort regarding merchandise, securities, service, or anything so offered to the public, which advertisement contains any assertion, representation, or statement of fact which is untrue, deceptive, or misleading, shall be guilty of a misdemeanour."

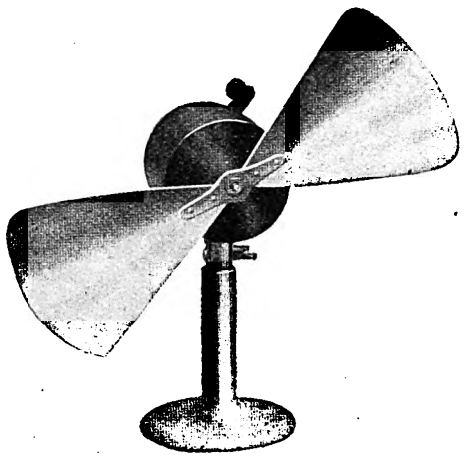
The seconder of the resolution said the daily newspapers did not and could not check the statements of their advertisers and consequently the public were left without protection. They were at the mercy of the advertiser.

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Novelties and New Samples

Clockwork Fan.

The clockwork fan illustrated hereunder is offered by the Blackman Export Co. Ltd., of 374 Euston-road, London, N.W. With base and blades of



aluminium and motor case of oxidised steel, this fan is at once silent, portable and self-contained. It can be wound up in a few seconds, and once set going runs for an hour. An occasional oiling is all the attention it requires when in use—other than the winding. It is declared to be absolutely harmless even if touched while in motion. The blades are 12 in. in diameter, and while the net weight is about 5 lb. the gross or packed weight is nearly twice that amount.

Sheffield Saws.

Spear & Jackson Ltd., of Sheffield, have perfected a new method of hardening and tempering hand saws by which the essential qualities of spring, temper and set-holding is increased by at least 25 per cent. Considerable time and expense have been entailed in obtaining this new process, and it has necessitated the installation of much new plant. The makers maintain that there are no better saws made, but there will be no increase in the price of saws produced by this new process. All future shipments of their Nos. 88a and 171a will bear the brand "Spearior" burnt in upon the handles, and saws of popular grades will undergo the new treatment in future.

The firm are represented in Australia by Mr. Frank Machon, Kembla Buildings, Margaret-street, Sydney, who has samples on view.

New Metal Roofing.

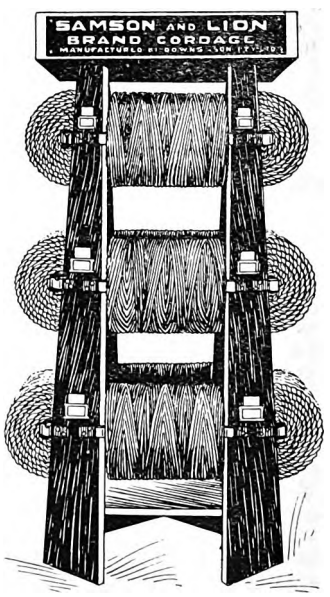
"R.P.M."—A British-made roofing of special construction, is a line represented in N.S.W. and Queensland by Noyes Bros. (Sydney) Ltd., and is now claiming the special attention of some of the leading architects, builders and engineers. Robertson's Protected Metal, to give the product its full title, is manufactured in corrugated sheets, the centre or core being an annealed steel sheet covered with asphalt. This core is again covered on both sides with asbestos felt and a heavy waterproof envelope. From this it can be readily seen that the steel ensures strength and adaptability, the asphalt prevents corrosion, and the water-proof envelope makes the surface impervious to fumes, sea air and other corrosive influences. From an economical standpoint, if roofing foundations are designed to carry these sheets, there is very little difference in the cost compared with other methods of roofing, especially as "R.M.P." does not involve the cost of painting and is claimed to be of remarkable strength and durability.

Display Stand for Cordage.

A good idea is embodied in a cordage display stand which has been designed by Downs & Son Pty. Ltd., of Brunswick, Melbourne, for the use of their clients.

The difficulties experienced in the supply of short lengths of sash cord and similar types of rope or cord to purchasers led the firm to experiment in this direction. Every retailer knows how time is wasted and annoyance caused by the constant handling of broken coils. It often means a trial of patience to the buyer as well as to the assistant who serves him. Sash cord is a case in point. This line is constantly required in short lengths, and some simple method of dealing with the problem was long overdue.

After many trials a strong and commonsense stand has been devised which finds instant favour with retail stores. An illustration of the appliance is given herewith. The stand rests on four sturdy legs, and has on each of its four sides three steel shafts, which pass through the centre of the reels of cord. The salesman finds it an easy matter to cut the necessary length for the customer, while the rest of the cord remains neat and ready for the next inquiry.



Not only so but the device tends to promote sales, the display stand acting as a reminder to buyers. The stand is suitable for all cordage up to and including 1⅛ in. in circumference. Special machinery has been installed to permit larger sizes of cordage to be wound on reels in the same manner as ordinary twine, and an ingenious machine stamps the firm's brand on every yard of sash cord.

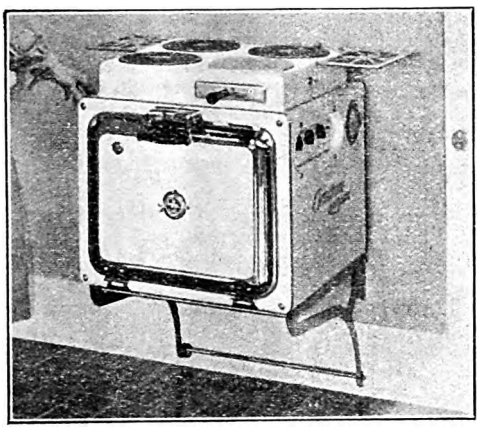
The display stand remains the property of the manufacturers, and is solely supplied for the convenience of users and distributors of "Samson" cordage.

Electric Cookers.

From The Armstrong Manufacturing Co., of Huntington, W.Va., U.S.A., Slade, Allan & Co., their Australian and New Zealand representatives, are introducing a new automatic electric cooking range of patented design known as the "Armstrong." The

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outstanding feature of this range is that it controls both time and temperature of oven cooking. This result is obtained by a simple setting for the time cooking is required to start and stop by an eight-day clock which is fitted into the side. Other notable features are that correct insulation is obtained by means of dead air spaces ensuring that practically no heat is wasted, and furthermore there



is no insulation material to become foul. The range, which has a beautiful white enamelled surface and highly nickelled trimmings, is complete with four full-sized heating units, one 1500 watts, two 1200, and one 720 capacity, and is fitted with a griddle which is also convenient for simmering. It is also equipped with waffle irons and toaster, the heat being applied to both sides at once. The oven, built of stainless steel, allows the fullest possible accommodation, and on each side of the range is a standard plug for connecting an electric iron, vacuum cleaner, or coffee percolator. The latter is, however, time-controlled, and it can be arranged that the percolator is placed on the range at night so that the coffee is ready at a prescribed hour next morning. The range is very compact, and instead of legs is fitted with two strong nickel brackets, leaving the floor space below the range entirely free and allowing it to be placed on the wall at a convenient height to suit the individual user.

From the same manufacturer is the "Armstrong" electric table stove. Although small, it is in every way practical and efficient, enabling three things to be cooked at once on the dinner table. Each stove is furnished with a deep broiling pan, egg cups and rack, a large griddle for frying and baking, a toaster, broiling plate, and a waffle mould. These are all made of aluminium and are easy to keep clean. The heat chamber of the stove is finished with white enamel.

The headquarters of the agents are at Broughton House, 181 Clarence-street, Sydney, with a branch at Danks' Buildings, Bourke-street, Melbourne.

An American Range of Samples.

As agents for Landers, Frary & Clark, Arkell & Douglas are now displaying at their sample rooms, 452 Flinders-street, Melbourne, a new range of "Universal" brand hardware. In addition to the many food choppers which are familiar to the trade, several sizes of "Corona" hand mills are shown. These little household appliances are becoming increasingly popular among Australian users. Much of their success on this market is probably due to the demand for wholemeal bread, which has grown with the knowledge of its superior food value. The hand mill furnishes a simple method of preparing one's own wholemeal at small expense. It will also grind poultry meals, nuts, and any kind of grain. Another useful "Universal" line is comprised in an excellent range of vacuum flasks. Made in several sizes, the "Universal" flasks are always turned out in a most attractive way. There are also a series of vacuum jugs which should find a ready sale. These are made in different shapes, and the colours used enhance their appearance.

A number of new samples of the "Burns" bread knife are worth inspection. Since this knife appeared on the market it has proved a popular line. Deservedly so, for it offers a very efficient cutting edge. There is now a stainless steel line from the same maker, and a cased set of three knives, one each for bread, cake, and fruit. It is reported to have found considerable inquiry as a handy article for Christmas sales, a set making a useful gift. The same principle is applied to grass shears, and seems to work well.

Other samples which may be mentioned are "Eagle" brand oil cans, made in various sizes and shapes, from the small and low-priced article for the house, to the larger and more serious can for the engineer or motorist. They are of tin or copper, and for the retail store counter display boxes may be had, containing assorted sizes. The firm have also a Continental make of hurricane lantern, moderate in cost, and taking the standard size of glass.

Cushion Strip for Rattling Windows.

Essex R. Picot Ltd., of 287 Clarence-street, Sydney, and elsewhere, are introducing "Home Comfort"—a patented brand of weatherstrip manufactured by E. J. Wirfs Organisation Inc., St. Louis, U.S.A. Designed for caulking around door contacts and windows, this weather-strip acts as a cushion preventing the noise of rattling windows and slammed doors. Resilient and particularly flexible, it is easily applied by tacking down a four-ply machine sewn lap and can be readily accommodated to irregular spaces or openings in case of warped doors and such like. It also has the advantage of being vermin and weather-proof since the insulated packing, forming both cushion and lap, is covered with a special rubberised waterproof fabric. It can be obtained in either white or maroon colour, but can be painted to suit any furnishing and it is conveniently put up in 500 ft. reels or 100 ft. coils marked at each foot for the convenience of selling over the counter any required length.

Rustless Iron.

Production of a low-carbon, high-chromium iron has been commenced by the Rustless Iron Corporation, Baltimore, U.S.A. The metal contains less than 0.1 per cent. carbon, while the chromium content varies from 11 to 16 per cent. It is claimed that this metal will resist atmospheric conditions indefinitely, takes and maintains a high polish, and is not subject to strain by organic acids. Its tensile strength is approximately three times as high as mild steel, and its non-corrosive properties eliminate the necessity of painting, enamelling or plating. The high tensile strength reduces the amount of material required to attain the safety factor of all fabricated constructional work.

A wide range of physical properties may be obtained by oil-quenching this metal from 950 deg. C.; and subsequently tempering it at increasing temperatures up to 800 deg. C., or annealing it at 900 deg. C.

Ferrosilicon and chrome ore are added to the initial bath of molten metal for conferring rust-resisting properties. Lime and other fluxes are added to facilitate the reduction process. The metal is cast in ingot moulds. After cooling, the ingots are surface skinned, eradicating all surface defects at the earliest possible stage. The ingots are reheated and rolled into blooms, billets, bars, slabs and steel bars.

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Pottery and Glassware

Japanese Goods.

H. Ide & Sons, Broughton House, Clarence-street, Sydney, have been appointed representatives for Hobo, Kondo & Co., Japan, on whose behalf they have an interesting range of glassware comprising tumblers, wines, decanters, and other table accessories, together with vases and novelty glassware. The crockery shown for this firm comprises tea sets, jardinieres, vases, novelty ash trays and egg cups.

New Agency for "Bisto" Ware.

Mr. P. Clifton Jones, of Australia House, 52 Carrington-street, Sydney, has been appointed sole Australian agent for Bishop & Stonier (1926) Ltd., potters, of Hanley, Stoke-on-Trent, makers of "Bisto" china and earthenware.

This old-established firm are well known to most Australasian buyers. Their business was recently reorganised, and a determined effort will now be made to secure a fair share of the Australian trade. Many new patterns have been produced, and a very fine sample collection will shortly be received by the new representative, who will be exhibiting them at the above address and also in the various State capitals.

Catalogues are also available, but in the china and earthenware trade, these soon become obsolete, as new designs are constantly being brought out.

To meet competition, keen prices are being quoted for white ware, also for printed sprays and gold edge line and sprig. The range of samples coming forward is very varied and the name alone is a guarantee of its quality.

English and Continental.

Lazarus, Rosenfeld & Co., of 279 Clarence-street, Sydney, hold large stocks of glassware, pottery and chinaware from English and European makers in the latest patterns and designs, calculated to meet the changing public taste. Unique in shape and decorations are the new supper sets, consisting of half a dozen plates and a sandwich tray. Made by the Empire Porcelain Co., of Stoke-on-Trent, they are prettily embellished with floral and faint designs. Quaint are the children's egg cups, some bearing representations of animals and birds, and others with caricatures of well-known film artists. Noticeable by reason of the quaintness of the pictures is the Old England brand of chinaware, comprising a variety of articles and table ornaments with paintings of old English village scenes.

The powdered glassware is worthy of mention. Vases, powder boxes, bowls and so on are shown in a variety of shapes and bearing scenes in different colours blown on with powdered glass. The mottled glass work is very striking, original shapes in vases, powder boxes, tobacco jars and so forth being shown.

The Victoria chinaware from Czekoslovakia makes a brave show, the colours being very striking. There are vases and toilet sets, tobacco jars and table ornaments in a great variety of colours and designs. The leaded glass attracts the eye, at first sight giving the appearance of brass or silverware.

Newly opened are the Egyptian tea sets, comprising in addition to the usual articles a cup and saucer and cake dish combined.

The lustreware is artistically finished and painted, giving an opalescent appearance.

The pressed glass with matte figures is a novelty, the floral designs cut into the bottom of the glass having the appearance of being raised.

Wine glasses with hand-painted pictures form a feature of the display.

The "Elanar" cut glass, while very strong and durable, is neat and attractive, and is to be had in different shades of blue, red and gold.

Souvenir chinaware shows scenes of Sydney and some country towns, while toilet sets are to be had in different colours, with Japanese scenes encircling the top.

Glass Industry in Great Britain.

During the past few years that part of the glass industry of this country concerned with the production of bottles, containers, electric light bulbs and glass tubing has been, on the technical side, in a state of transition. In order to facilitate mass production, automatic blowing, or pressing and blowing, machines have been introduced, and these have led to an extension of the use of tank furnaces, and the gradual abandonment of pot furnaces for glass melting. The technique of this side of the industry has been completely changed, and those engaged in production by the newer methods have had constantly to face an entirely fresh crop of technical problems.

The most immediate need of an industry in such a condition is perhaps research of the kind that is used for the solution of day-to-day works problems rather than far-reaching fundamental research. Much of the work carried out by the Glass Research Association, which has now been liquidated voluntarily, was of this nature, although mention should be made of useful fundamental work carried out on the relationship between the chemical composition and the electrical conductivity of glass at high temperature in the association's laboratory, and on the viscosity of glass at high temperature undertaken on its behalf at the National Physical Laboratory. The association devised draught and pressure gauges for facilitating the control of furnace operation, designed a new type of regenerative furnace, and, with the experience it possessed, gave advice on the choice of plant, on works laypout, and on many difficulties arising from day to day.

The association also showed how the refractory material sillimanite could be used with advantage in the construction of that part of the pot furnace known as the "siege," and it patented a mould for use in the blowing of glass articles, the feature of which was that it was unnecessary to apply a dressing to the surface during use. The association further carried out a lengthy research for the purpose of ascertaining what was the most generally satisfactory composition of glass tubing; it was hoped to facilitate the production of a standard glass tubing, for use in the construction of lamp-blown ware, which would be generally adopted. If such a standard glass tubing were adopted it would obviate the difficulty that often arises when attempts are made to join different kinds of glass. It is understood that this work has proved of service to the industry.

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News from Abroad

Huge Dock System.

Liverpool now claims possession of the largest dock in the world. On July 20 King George and Queen Mary visited the great port on the Mersey to open the Gladstone dock system, carried out at a cost of £7,500,000. The total length of the quays at which vessels can be moored is three miles. Sheds along the quayside provide 60½ acres of floor space. The entrance lock is declared to be a triumph of engineering skill, making the docks accessible to the largest ships afloat, such as the "Aquitania," at any state of the tide.

Steel Manufacture in South Africa.

The annual general meeting of the Union Steel Corporation (of S.A.) Ltd. has revealed some interesting facts connected with the activities of the company. The chairman reported that very satisfactory progress had been made. The completion of the fourth melting furnace at the steel works at Vereeniging now enables the works to produce 50,000 tons of steel per annum. The construction of the wire works at Vereeniging has been completed, and the rod mill has commenced operations. At Newcastle the blast furnace which was brought into commission on June 18 last year has continuously been producing pig iron of the highest quality. — "Industrial and Commercial South Africa."

New Process of Making Iron.

Mr. Thomas Rowlands, of Sheffield, is the inventor of what is said to be a process for making pure iron from ore at one operation. The main stages of the process are:—(1) Distillation of coal; (2) preliminary reduction of iron ore; (3) complete reduction of iron ore; (4) magnetic separation of pure metallic iron; (5) revival of spent gases. Mr. Percy Longmuir, the well-known metallurgist, is of opinion that the process holds great promise to the maker of carbon and alloy steels, and that it would not compete with existing blast-furnace methods for producing pig iron. He believes it may fill a special field of its own for the supply of pure metallic iron as a foundation material of high-grade steel.—"The Ironmonger."

Huge Suspension Bridge.

Already connected by ferries and a vehicular tunnel, the cities of New York and New Jersey, in the United States, are to be still more closely and spectacularly related by means of an immense suspension bridge. Spanning the Hudson River from 179th-street, Manhattan, to Fort Lee, New Jersey, this bridge will be nearly a mile and a half in length with towers standing 600 ft. above the water and two-thirds of a mile apart. The work is to be done under direction of the Port of New York Authority, a joint body from the two States which has power to erect and operate such enterprises for the benefit of the port. It is to be done in two stages, the first of these to cost about £10,000,000, and the second half that sum. Five years are spoken of for the completion of the first stage.

With the erection of this structure New York will again boast the largest suspension bridge in the world.

"Electrolux" in Great Britain.

In 1922 the Electrolux Co., of Sweden, commenced to sell in England their vacuum cleaners of that name. So successful was the enterprise that in 1926 a wholly British company (Electrolux Ltd.) was registered with a capital of £1,000,000 and head office at 155 Regent-street, London, W.1.

New works have now been erected for the company at Luton, the low rates charged there for electric current largely determining the site. Here, not only electric cleaners but chemical refrigerators will be manufactured by the company. The equipment includes the latest plant for depositing pure porcelain on steel, and special machines for nickel-plating and polishing aluminium. It is proposed to erect ideal homes for the workmen, of whom there are some 400, and the amenities provided include lunch and recreation rooms, tennis-courts, and a football field. A bonus system has been introduced.

Luton has been known hitherto as the chief seat in England of the straw hat industry. A town of some 60,000 people it is in Bedfordshire on the river Lea, among the Chiltern Hills, thirty-one miles by rail from London.

German Steel Exports.

The following is from the New York "Times" of May 8 last:—

"Official records now available show that Germany last year regained her pre-war position as the leading steel-exporting nation of the world, the total shipment of 1926 being 4,824,000 gross tons, with scrap not included, or at the rate of 402,000 tons per month, against about 2,000,000 and 3,000,000 for the United States and England respectively. How this remarkable achievement compares with the preceding year and with 1913 is shown in the following table, giving the exports in gross tons per month:—

	Tons.
1926	402,000
1925	267,600
1924	128,000
1913	517,300

"In 1913 the total included the exports of Luxemburg. With this allowed for, it is probable that in 1926 Germany virtually equalled her own pre-war record; a remarkable recovery in view of the fact that her steel-making territory was considerably lessened as a result of the war. Figures for January show that in the present year the rate is undiminished, the exports for that month, at 478,400 tons, being larger than for any month in 1926, and greater than the average for the year."

The Department of Overseas Trade.

The agitation concerning the proposed abolition of the Department of Overseas Trade persists unabated, and its range and intensity should give pause to the Chancellor of the Exchequer, whose desire for economy has prevented his recognition of the invaluable work the Department has done in strengthening the position of British manufacturers in overseas markets. Commercial organisations and individual firms throughout the country continue to register the strongest possible protests against such a hasty and misguided step, and business men are hoping, not without good cause, that the Government may even yet be persuaded to reconsider its decision. Even if it were possible to save the whole of the annual grant of £300,000 which maintains the department, its abolition would still be generally regarded as a piece of false economy; but there is every reason for supposing that the actual saving will be less than £50,000 per annum! The Government, it must be remembered, is pledged to maintain the department's overseas organisation, including the services of commercial attachés and trade commissioners, representing an expenditure of at least £200,000 out of the total grant, and it is not unreasonable to anticipate the expenditure of a further £50,000 if the merest pretence of co-ordinating the work of the two services mentioned is to be kept up. The beggarly sum which is likely to be saved is doubly ridiculous when the heavy loss of service to trade is considered.—"The British Export Gazette."

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Interstate General News

Fire in Factory.

Moffat-Virtue Ltd., machinery merchants and manufacturers, sustained heavy losses of valuable machinery from a fire which occurred in the works department and store rooms of their factory at Palmer-street, Woolloomooloo on July 11. Although the fire itself was chiefly confined to the upper floor of the large building, considerable stocks of agricultural machinery, together with spare parts and the contents of the offices on the ground floor, were severely damaged. About fifty men are engaged at this factory and store.

Motor Spirit in Tasmania.

Some time ago the British Imperial Oil Co. Ltd. acquired about six acres of land behind Ocean Pier, Hobart, on which they are erecting structures for the storage of oil. Two tanks of 450,000 gallons each and one of 200,000 gallons will be installed on the property. From these the spirit will be pumped into gravity tanks whence it will flow into bulk motor lorries and rail tank cars for distribution. Subsidiary underground tanks are being provided at Launceston (36,000 gallons) and Ulverstone (24,000 gallons), the entire outlay at the three places being about £70,000.

Pillage of Cargo.

The annual report of the Sydney Chamber of Commerce recently presented contained the following reference to this subject:—"An impression prevails that much of the actual pillaging of ships' cargo is done at this end. The thieves are endowed with uncanny perception in choosing boxes containing the most valuable articles, and those which are most easily purloined from the ship. During the year twenty-nine arrests were effected. Magistrates are now realising the magnitude of the evil."

In their endeavour to stamp out the evil the council of this State chamber has sought the co-operation of the Associated Chambers of Commerce of the Commonwealth.

Linseed Oil Agreement.

Representatives of Melbourne oil and colour merchants and the representative of an Australian manufacturer of linseed oil met in conference on August 1 to discuss the question of wholesale oil prices. During the previous fortnight, following a dispute with a manufacturer who contended that merchants here were charging too high a price, and were endeavouring to squeeze out Australian oil, there has been much price cutting. In many instances merchants have sold oil below the price which manufacturers were asking. The dispute has now been settled amicably and prices have reverted to normal levels. Australian oil will now be sold at 5/- a gallon for raw, and at 5/2 for boiled. Merchants have agreed to sell imported oil at prices at least 3d. a gallon above the locally produced article. English oil will be quoted at from 5/3 to 5/6 for raw and from 5/6 to 5/9 for boiled.

Moving Out for More Room.

Edwin Jenkins Pty., Ltd., of Melbourne, have bought five acres of land on the River Yarra at Abbotsford near the factory of the Cyclone Gate & Fence Co. Pty. Ltd. Here they will erect works for the continuance of their business as makers of bedsteads, stoves and other foundry work.

Since 1862 the business has been conducted from 265 Exhibition-street. Lyster & Cooke were the first proprietors and were succeeded in 1880 by Jenkins & Law. That partnership being dissolved in 1891 the late Mr. Edwin Jenkins became the sole owner and afterwards formed himself and others into a proprietary company. In 1918 Messrs. A. E. Carey and J. D. Evans purchased the business as it stood and have conducted it ever since under the same title. Now feeling that their city site was too valuable for foundry purposes, they have sold it and will move out as soon as the new works are ready.

The Industrial Commission.

Now back in Australia, the Industrial Commission which visited the United States at the instance and expense of the Commonwealth Government may be expected ere long to present a report. The commission was representative of both employers and employees, and judging by all that has reached us from America, there seems little hope of the report being unanimous.

It is said, however, that both parties agree on (1) co-operation between employer and employee, (2) the scientific management of industry and the development of power and (3) increasing the efficiency of the workman. But divergence of opinion is said to exist whether such systems as shop councils or company unions are a greater success than compulsory arbitration, and there are also serious differences whether managements have the right, without the interference of unions, to decide upon piece or standard time work, or any wage incentive.

Bridging the Yarra.

The long-discussed bridge across the Yarra River at the bottom of Spencer-street, Melbourne, has at last come within the range of "practical politics." A bill brought down for its construction by the Government of the day is now before the Legislative Assembly of Victoria. According to this measure the work of erection is to be entrusted to the Board of Land and Works, and the amount to be expended is not to exceed £200,000. The money is to be found by the various metropolitan municipalities who are to benefit by the bridge, the Melbourne City Council to provide half the cost and the other twenty-five municipalities the other half among them pro rata from £18,000 in the case of South Melbourne down to £1100 in the case of Oakleigh. Payments will be spread over a long term of years. When erected the cities of Melbourne and South Melbourne are to unite in maintaining a structure which will connect and should benefit both very materially.

As the bridge is to be of the fixed type it will close to further use a good deal of wharfage on both sides of the river from which the Melbourne Harbour Trust derives revenue, and by way of compensation for this loss the bill provides that the State Government, the Victorian Railways Commissioners and the Melbourne & Metropolitan Tramways Board shall pay in equal proportion any sum up to £150,000 which the Governor in Council may decide that the Harbour Trust Commissioners ought to receive.

Although the constructional authority named is the Board of Land and Works, the Public Works Department will actually do the work, probably by day labour, the necessary steelwork being obtained from the railway workshops at Newport.

The present plans for the bridge provide for a superstructure of steel with concrete abutments. Its length will be 320 ft. and its width 100 ft. 6in. There will be three spans, the centre 112 ft. in length and each of the others 104 ft. The roadway will be 80 ft. 6in. in width, with footpaths 10 ft. wide on each side.

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Commonwealth Tariff Decisions

The following decisions of more or less interest to the hardware trade have been made during July. By way of explanation it should be mentioned that the double number on the left of each entry represents the tariff decision number, while the number to the immediate right is the tariff item, and the date following (4/7/27, and so on) the date on or from which the new decision took or takes effect:—

Cleaners and Cleansers—

27/502 Vacuum Cleaner, upholstery, for automobiles, being a detachable nozzle operated by suction from the engine. — 208 (a) — 4/7/27

Iron and Steel—

27/510 Tees, in the state in which they leave the rollers, for use in the manufacture of Guide Rails for Elevators (Lifts), under security. (By-law No. 347). — 404 — 8/6/27

Machinery, Machines, etc.—

27/511 Broom and Brushmaking Machines—Boring. (By-law No. 339) .. .. .. — 174 — 14/8/26

Machinery, Machines, etc.—

27/516 Signalling Apliances (Electric), for Railways, viz.:—
Relays .. .. — 179 (c) — 4/7/27
Note.—The reference to Relays, excepting Telephone Relays, etc., in "Guide," page 115, is to be qualified accordingly, and T.D. 25/54 is to be cancelled.

Vehicles and Parts thereof—

27/521 Motor Vehicles—
Trucks, Elevating Platform, operated by electric storage batteries. (By-law No. 345.) — 174 — 15/11/26
Note. — The reference to Trucks, "Tier Lift," etc., in "Guide," page 396, is to be cancelled.

Discs—

Steel, Silicon, insulined, plain, for use in the manufacture of Notched Stampings, for Electric Motors. See Iron and Steel—T.D. 27/531.

Hammers—

27/530 Tack, Automatic, for driving tacks or staples which are automatically fed through the barrel of the hammer (as a Hammer, vide By-law No. 28). — 219 — 11/7/27

Iron and Steel—

27/531 Discs, Steel, Silicon, insulined, plain, for use in the manufacture of Notched Stampings for Electric Motors, under security. (By-law No. 356.) — 404 — 15/6/27
Note.—See also T.D. 27/550.

Iron and Steel—

27/532 Tees — The reference to Steel Tees in the rough, for use in the manufacture of Guide Rails for Lifts, under security, in By-law No. 71, and in Consolidated By-laws, page 108, and T.D. 24/604, are to be cancelled, vide T.D. 27/510. — .. — 8/6/27

Machinery, Machines, etc.—

27/538 Drilling Attachments, Multiple Spindle, for use on all types of Metal-working Drilling Machines. — 174 — 11/7/27

Machinery, Machines, etc.—

27/541 Splicing Machines (so called), Film, capable of splicing either negative or positive films or unperforated raw film stock. (By-law No. 364.) — 415a (2) — 7/6/27

Pipes and Tubes (Metal)—

27/547 Tubes, Brass Cased, polished, having a coating of lacquer. — 146 — 11/7/27

Washers—

27/550 Steel, Silicon, insulined, plain, for use in the manufacture of Notched Stampings for Electric Motors, under security. (By-law No. 356.) — 404 — 15/6/27
Note.—See also T.D. 27/531.

Chasers—

27/552 Hand type .. .. — 208(a) — 18/7/27
Machine type .. .. — 176(f)
Note.—The references (4) thereto in "Guide," page 56, the reference in Consolidated By-laws, page 35, and in By-law No. 28, are to be cancelled; but any Chasers which were in direct transit to Australia on 18/7/27 may be admitted under Tariff Item 219. (By-law No. 376.)

Meters—

27/574 Moisture, for determining the amount of moisture in foundry moulding sand to enable uniform sand conditioning to be maintained. (By-law No. 386.) — 415a (2) — 27/6/27

Sheets—

27/577 Zinc, perforated, for use in the manufacture of Dish Covers and Meat Safes, under security. (By-law No. 382.) — 404 — 12/5/27

Stocks, Dies, Taps, Chasers, and Screw Plates—

27/578 Chasers—See "Chasers" T.D. 27/552.
Note.—The reference thereto in "Guide," page 354, is to be cancelled.

Cordage, Threads, and Twines—

27/603 Cordage, stranded wire, bronze, seven strands—The reference thereto in Consolidated By-laws, page 72, in By-law No. 64, and T.D. 26/840, are to be cancelled, but any such Cordage as was in direct transit to Australia on 1/8/27 may be admitted under Tariff Item 388 (a). (By-law No. 412.) — .. — 1/8/27

Machinery, Machines, etc.—

27/610 Distillation Plants, for use in connection with the refining of Crude Oil by the Cracking Process. (By-law No. 415.) — 415a (1) — 2/12/26

Machinery, Machines, etc.—

27/612 Exciters, Direct-coupled, imported with and for use with Alternators or Generators admissible under Tariff Item 174, vide T.D.'s 26/698 and 26/702, may also be admitted under Tariff Item 174. — .. — ..
Note.—The reference to Exciter, etc., in "Guide," page 202, and T.D.'s 26/698 and 26/702 are to be qualified accordingly.

Compounds—

27/582 Graphite Pipe Joint, consisting of graphite ground in raw linseed oil. — 255(b) — 25/7/27
Note. — The reference thereto in "Guide," page 266, is to be cancelled, and the reference in "Guide," page 145, is to be amended to read "See Compounds."

Cycles, Motor Cycles, etc.—

27/583 Controls, Carburettor Twist Grip, Handlebar (also known as Twist Grips), for Motor Cycles. — 352(a) — 25/7/27
Note.—T.D. 27/252 is to be cancelled.

Cycles, Motor Cycles, etc.—

27/583 Levers, Air, Spark, and Throttle, for Motor Cycles. — 352(a) — 25/7/27
Note.—The reference thereto in "Guide," page 81, is to be cancelled.

Cycles, Motor Cycles, etc.—

27/584 Levers, Air, Spark, and Throttle, for Motor Cycles. — 352(a) — 25/7/27
Note. — The reference thereto in "Guide," page 81, is to be cancelled.

Cycles, Motor Cycles, etc.—

27/585 Springs, Pillion Seat, for Motor Cycles — 252(a) — 25/7/27
Note.—The reference to Springs—Motor Cycles, in "Guide," page 83, is to be qualified accordingly.

Machinery, Machines, etc.—

27/595 Pump, Petrol, Portable, consisting of pump, tank and wheels affixed, hose and gauge—
Gauge .. .. 208(a)
Hose .. .. 332(b)
Pump .. .. 176(f) — 25/7/27
Tank and wheels affixed.. 360
Note.—T.D. 26/82 is to be cancelled.

The Cause of the Trouble.

A customer recently purchased and had installed a tile slab fireplace with hob boiler. He returned very soon to say that it was a complete failure. The fire would not draw nor the hot water system function. The hardwareman hurried out to view the failure and found the whole trouble to be in the placing upside down of the grating. The housemaid had taken the grating out to clean up, and wrongly replaced it. A simple trouble, no doubt, but very real to both parties until discovered.—From a New Zealand correspondent (32/210).

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Trade and Industry in California

(Specially contributed by 54/208)

Instead of public bars the United States have in intensified form the automobile craze. The motor car overshadows all else. Admittedly the tremendous importance of the motor industry and the allied occupations that industry creates, are beneficial, but with reservations.

In California I had various discussions with and opinions from, industrial and commercial men, mainly in San Francisco and Los Angeles, which are cities with purchasing power of the people equalling anything of the same size in Australia. In April a crude oil war raged, and sales were made at unprofitable figures.

The manager of the largest chain store in California, with operations extending into Canada, who handles electric ironers, washing machines, and vacuum sweepers, averred that his greatest competitor in the market is the automobile, and the same applies in relation to most other hardware household work-saving machines. When it becomes a choice of what paterfamilias shall buy, the voting is heavily in favour of the motor car. The time-honoured washboard is made to do mother in the laundry, and the same is the case in regard to other hardware lines. Father and the family generally must have a motor car; for the humbler home any old makeshift must do. How important an effect this ruling condition exerts on the hardware trade generally is obvious, and the pertinence of the preceding remarks thereto becomes apparent.

Apart from food, 98 per cent. of trade in California is transacted on the credit instalment plan. This largely applies to the motor car. Unfortunately "Lizzie's" life is brief, and rarely before giving up the ghost has she become the property of the instalment purchaser. In passing by one "shop" I saw a great pit more than half filled with the bodies of worn-out motor cars thrown away as rubbish. Not infrequently the car ruins its purchaser financially, and to emphasise the injury, is taken from him for payments in arrears. Business and financial men describe the automobile as the gravest problem with which the country is faced.

Still, sales in work-saving household machines go on. Occasionally they lag, but some persuasive salesman is appointed by the "chain" manager to the backward-sales district, and sometimes succeeds in livening up the trade. This is not so difficult, for in these commodities cash transactions are negligible; it is mainly a house-to-house canvass. Consequently overhead expenses are great, but these notwithstanding, I am assured that prices are good and well worth the effort to secure.

Despite motor car competition in San Francisco and Los Angeles, the hardware trade is healthy. Though having merely about half the population of the moving picture metropolis, 'Frisco makes the more impressive business show, due to the complete rebuilding of the business portion of the city subsequent to its destruction some years ago by an earthquake. Consequently her buildings are new in appearance and more uniform in height than in older streets, including much of Los Angeles. A fictitious appearance of width is created by the absence of pavement awnings, those pleasant and utilitarian features of the business streets in Australia's cities and towns. The shops of San Francisco have little collapsible awnings of striped material, such as are common in France. These inadequately protect the windows from the sun, but afford prospective purchasers no shelter—in itself a business error. The same vogue rules in the much sunnier city of Los Angeles.

Hardware windows in these Californian cities seem to err in over-display. Australia's capital cities have just as much window space, but the Australian trader displays his ware with superior judgment as to effect. In California an entire window may be devoted to the display of pocket knives. In all sizes, with blades partly or wholly opened, such knives are heaped up in sufficiency to stock the store entirely—as perhaps they do. Some are arranged according to the trader's fancy, but the larger proportion lies higgledy-piggledy, purposely so, no doubt.

Traders in household and hollowware favour feature window display. "Every article in this window one dollar," say the tickets. And the window contains, in excess, pretty well every article the housewife requires and many she doesn't need but comes to think she does. Many of the articles displayed are worth one dollar each, but an appreciable proportion certainly are not. Ten, twelve, and so on cent stores abound. "No article more than ten cents here." Included are articles which to make one complete for use, comes in, say, three separate yet actually integral sections. These are marked ten cents each, making the completed utensil quite sufficiently expensive. The same method is almost universally employed in the sale and serving of food, making the full course meal costly. One prefers the straightforward Australian way of inclusive pricing, say, a three-decker porridge boiler or—a dinner.

Sellers of travelling trunks and suitcases keenly compete for trade, yet in San Francisco it was difficult to purchase a pair of rug straps. A set was eventually made up by removing the leather straps from a travelling case and fixing these in a comfortably rounded loose leather handle whose ends buckle and lock round the strap instead of the latter being rove through.

Sporting and camping goods were well shown. In these lines window display is a high art. Entire windows are made up in semblance of a sports lawn or camping ground. The ubiquitous auto is snug in its tent, and everything the camper requires, from stretcher bed to lunch cases and camp furniture, is on view. Wax figure men, women and children are fishing, shooting, or playing baseball or other games against typical painted sylvan scenes. Sporting guides, rail and boat pamphlets, time-tables, and suggestions and books on each particular game catered for, are judiciously stacked to attract and decide the waverer.

In San Francisco is one particularly effective display of bathroom equipment. The entire ground floor was devoted to onyx baths inset at half level, and swimming pools of marble with adjoining benches, treble and double, in the same material. These groups differed widely in beauty of effect though they were of the same basic material.

A balanced comparison of Australian and Californian hardware prices is difficult to make. For household ware prices vary greatly in shops which carry apparently the same quality. Some vendors of tools make rather a happy display, but these, too, are oversupplied and are not equal to Sydney's best.

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Fine glassware included in crystal, intensively opaque smoke-effect glass vividly flower-decorated; such as mayonnaise set with ladle, butter-ball tray, low candlestick, sherbet and plate.

Dressing cases for men is a prominent and noteworthy line. These come in metal desk sets in silver, copper and bronze finishes in seven pieces in hammered designs; also compactly fitted cases of cowhide in grain effect or smooth finish, with eight or twelve articles, space for razor, and brushes.

Refrigerators, ordinary, electric and iceless, are featured in a host of varieties for the hot season, which comes to Los Angeles toward the end of April. Ordinary ice chests are largely of fine kiln-dried hardwood with overlapping doors, entire provision chamber white enamelled, the shelving of heavy tinned wire, and are finished outwardly in golden oak.

Most of the hardware displayed in Californian city shops bear the names of American manufacturers in the Eastern States.

"Well, you see," the Californian says hesitatingly, "the climate, and oil, and the movies are our principal assets." Neither of these is of any real importance it seems to me. The climate is wonderful, no doubt, but I heard more coughing at Los Angeles in hot weather than I have heard in Sydney at midwinter. When oil is located and pumps put down, comparatively few men are employed in raising the smelly but useful fluid. The permanence of the industry, moreover, is doubtful. Authorities are discussing with concern the future of the oil wells all over the country. In cases and places operations are unprofitable, and the danger of exhaustion is always present as a possibility of the not distant future. Movie studios there are, some large and many small, the latter at work in dingy rented premises, but as an industry that may be developed more or less indefinitely the thing doesn't count.

Building is not very brisk, especially in suburban San Francisco, although in the city itself several large jobs are in hand. The suburbs run to wooden buildings of two, three and four storeys. Mexican labour is available in Los Angeles, and on the Santa Fe railway little else is employed on the permanent way. Of real manufacture there is comparatively little in this part of America.

About Stopping Cheques

(From "Kemp's Mercantile Gazette.")

To stop payment of a cheque that has been drawn and sent out to the payee seems an easy matter; but it requires to be done with care, or costly complications may easily arise. This was well shown recently in the case of Hilton v. Westminster Bank Ltd. ("Times," March 26, 1926). Upon the facts, the whole thing seemed to be quite a small matter, but its decision by the Court of Appeal involved the consideration of the banker's duty under peculiar circumstances. The plaintiff, who was a bookmaker, had an account with the defendants' bank at their Tottenham Branch. He drew a small cheque in favour of a Mr. Poate on July 31, 1924, but post-dated August 2. On August 1 he decided to stop payment of this cheque, so he wired the manager of his branch bank. The telegram gave the amount for which the cheque was drawn, and the name of the payee, giving the number on the cheque as 117,283. This final figure 3 was wrong, and should have been 5 That error was the cause of the whole subsequent confusion and litigation. On August 6 the cheque to Poate, numbered 117,285, was presented to the bank, and it was paid.

Nor was that the only trouble, for by this payment the plaintiff's account was so reduced that when, on August 20, he drew a cheque for £7, the bank dishonoured it upon presentation. Then the plaintiff brought this action, in which he claimed damages against the Bank for the payment of the cheque which he had stopped, and for refusing to pay the second cheque which he had drawn later. The Bank denied negligence, and the case was heard before Mr. Justice Horridge. After hearing evidence, this Judge held that the plaintiff's telegram stopping his cheque was clear as to a cheque numbered 117,283. But he could not hold the Bank guilty of negligence because they did not search for that cheque, although had they done so it would have been found to have been presented and paid, and they could have so informed the plaintiff. The Judge, however, ruled that it rested with the plaintiff to correct the error he had himself made in his stopping telegram, which, in fact, had caused the whole trouble. On this ground, and under these circumstances, the Judge gave judgment for the defendant Bank, and the plaintiff appealed. The question was whether, on the facts, and in Law, there had been negligence by the Bank.

In the Court of Appeal it was stated that the Judge below had taken too narrow a view of the whole case. Broadly speaking, though regulated to some extent by Statute, the relation of Banker and customer was contractual. The duty of the Banker, arising out of that relationship, was to carry out the instructions of his customer. Of course, a Banker was not bound to act upon a telegram only, but here they were prepared to do so. Then there was the plaintiffs' talk on the telephone to a cashier of the Bank, referring to the cheque, which was not presented for payment until August 6. As Lord Justice Bankes said in his judgment, the Bank thus had ample opportunity for making proper inquiries, and did not make them. The Judge below had held that the plaintiff's telegram was not a countermand, and that his talk on the telephone was ambiguous. He also drew a distinction between the manager and the cashier. But, in Law, both of them equally represented the Bank. This appeal Judge ruled that it was the duty of the Bank, during the long interval of time they had, to have made proper inquiries in the actual facts and figures.

It was, indeed, this absence of such a proper inquiry after they had all the facts and the figures from the plaintiff, that caused the Court of Appeal to decide against the Bank. The principle upon which they proceeded was, that this duty of inquiring into the matter was cast upon the Bank, and rose out of the contractual relation existing at Law between them and the plaintiff as their customer. If they had done so, the whole matter would have been cleared up at once, and the plaintiff's mistake as to the number of his cheque would have been set right, and done no harm. In the end the Court of Appeal allowed the plaintiff's appeal on either, or both, of the following grounds:—(1) That the Bank failed in their duty, because they were satisfied when they ought not to have been satisfied. (2) Because it was obvious that the Bank should have made some inquiry before paying the plaintiff's cheque. The three Lords Justices then agreed in allowing plaintiff's appeal, with costs, and the result is that the Bank lost the case through not looking sooner into the matter as to which they had all the materials. This was held to be negligence on their part, and so it cured the plaintiff's original careless mistake in a figure on which the Judge below had found in favour of the Bank.

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Australasian Metal Markets

All prices are quoted for approved brands, duty and over charges included.
For English prices, see The Month's Cablegrams on page 256

Sydney, August 1, 1927.

July trading was much better than was anticipated from the conditions of last month. Through the dry weather much business appeared to be passed over, but on the other hand there was quite a pleasing feature to be noted from the volume of trade resulting apparently from the orders which had been postponed earlier in the year. Shelf lines were attended with good results. Painters' materials sold earlier in the month at list prices, but eased somewhat as the month progressed. Galvanised corrugated sheets and plain sheets were reduced in distributing price, but this did not affect trade to any extent. There has been quite a good demand for iron of all gauges and both plain and corrugated have gone into distribution very well. Oils sold well and turpentine had some attention as the market has hardened in America. Resin was sold in distribution to the manufacturers in good parcels as some of the expected shipments were late. Tinplates went into the hands of the canister workers in quantities notwithstanding the late arrivals from Great Britain from last year's indents. Stocks are not heavy on spot, but trade is quiet. Jute fabrics have shown some alteration in price compared with last month. Some activity was noted in bran bags and also in corn sacks when the reported fire aboard one ship en route was advertised. But apart from this jute traders have had a quiet month. Wire and barbed wire showed no conspicuous features, country trade being quiet. White lead eased in price through parcels held by speculators, and most of the parcels held were taken off the market by the trade houses. Suburban trades report cash business as good, and well spread, and smaller suburban storekeepers have had a good month. Conditions in the city are quiet for this period of the year, and country trade is affected by the dry weather. The general outlook, however, is optimistic and there are no reasons to think trade will have any serious aspects during the forthcoming month. Stocks of all lines are not heavy in proportion to the business written for the corresponding period of last year.

Auckland, July 20, 1927.

Since our last report business generally has been on the quiet side, which is not unusual for this period of the year. Most of the large hardware houses have been engaged with annual stocktaking and are now looking forward to the spring with the hope that business may improve. A more optimistic feeling prevails, and provided prices of primary products and production are maintained, exports should exceed our imports and the present position be reversed. The most notable alteration in prices is a reduction of £1 in the price of galvanised iron. First grade is now quoted at £30 and second grade at £29, but sales so far show little improvement. There has been a fair demand for fencing wires, English brands receiving most attention. Wire netting is now quoted at the new revised list prices subject to a trade discount of 37½ per cent. Ingot tin is quoted to-day at 3/1 per lb. Pig lead shows a further reduction and is selling at £32/10/-. White lead is also lower at £57. Linseed oil is firmer at 5/3 for raw and 5/5 for boiled. Stocks of galvanised water pipes have been heavy, but sales have reduced holdings and prices are consequently firmer. Fair sales of bar iron and steel plates are reported.

Christchurch, July 19, 1927.

Hardware firms in Christchurch complain that business is still very quiet. Practically no building is in hand, and this affects plumbers, electricians and many other allied trades. There has been more unemployment locally this year than in any previous winter, and a food and clothing depot has been opened to relieve distress. By means of subscriptions from the public several hundred men have been employed, and recently the Christchurch City Council voted £25,000 for improving the streets of the city and suburbs, and the layout of Cathedral Square, the latter estimated to cost £9000. This should provide work for every one. The recent seasonable rains have now enabled farmers to get their

NEW ZEALAND PRICES.

	Duty.	Auckland, July 20	C'church July 18	Dunedin, July 15	Wellington July 22
IRON—					
Bar—		£	£	£	£
English ..	Free	21	22/	23/	24
Shoeing ...	,,	23	23/	22/	25
Steel ...	,,	15/10 to 21/-	20	23/	18/ to 25/
Pig	,,	8	10/6	10/6	9/- to 10/-
Plate ...	,,	21 10/	24/	25/	24/6
Hoop ...	,,	24/, 35/	33/	32/	38
Sheet, Blk.	,,				
to 20-g. ...		23 10/, 24 10/	26/6	26/	24/6 to 26/6
22 & 24 g.		25 10/	28/6	28/	26/6
Galv. Cor.—	2/-				
First ...		30	32/ Builders	33/	31 10/
Second ...	,,	29	29/- ,,	32/	30 10/
Local ...	—	30		...	...
Do., Plain	Free		...		
24 & 26 g.		32/, 33/	33/, 35/	35, 37, 39	30 10/
Pipe—Galv.	Free	45%	42½% off	42½	40% off
,, Black	,,	50%	47½% off	50% off	50% off
Wire—	,,				
Galvd. ...	,,	16, 18	18/	16/6	17/6 to 18/6
Black ...		16/6	17/	15/6	
Barbed ...	,,	21, 23 10/	24/-	21/	22/ to 23/
Nails ...	2/4/- c	20/6	21/-	21 10/ to 23	22
,, N.Z.		20/6	...		22
Lead—Pig	Free	32/6	45/	48/	37½
,, Sheet	,,	44/	47/6	60/	50/
,, Shot	10/-	75/	80/	80/	75/
Tin—Ingot	Free	3/1	3/4	3/2	3/7
,, Plates	,,	32/6, 48/6	40/	40/	37/6
Zinc—Sheet	,,	7½d. lb.	9d. lb.	8½d.	8½d
Quicksilver	—	...	6/6 lb	...	...
Cement—					
Imported	1/-cwt.	...	22/6 cask	...	...
Local bag	—	5/8	7/-	6/	5/11
Slates ,,	Free			...	...
P. of Paris ...	,,	27/6	32/6	26/6	27/6
White Lead	10%a.v.				
Best ...	—	57/	62/6	61/ to 63/	67/ to 68/
Second ...	—	56/		...	66
Blst. Powder	Free	1/8	1/9	1/7	1/8
Rope— ...	20%				
Manila, Star	—	111/	111/	116/	111/
,, O. ...	—	107/	107/	112/	107/
Flax, N.Z. ...	—	81/, 88/	88/	88/	88/
Cornsacks ...	Free				
44-in. ...	—	...	...	12/11	14/6
46-in. ...	—	...	14/9	12/3	14/9
48-in. ...	—	15/	15/	12/10	15/
Woolpacks ...					
Full ...	Free	5/3	5/3	4/4	5/6
Oils—					
Linsd, raw	6d.	5/3	N.Z.5/- Eng 5/3	5/3	5/6
Castor ...	Free	5/-	5/6	5/6	5/6
Colza ...	,,	7/9	8/	8/-	7/9
Kerosene	,,	14/9	14/9	14/9	14/3
Turpentine	,,	7/6	7/-	7/-	7/6

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ploughing done, and good sales have been made of ploughshares, while the firms selling tractors report a good sale for all spare parts and replacements. Usually at this time of year farmers make large purchases of fencing material, wire standards and netting, but this year sales have been considerably reduced because economy is the order of the day. The Canterbury Chamber of Commerce Economic Committee has recently issued a bulletin reviewing the relations of capital and labour. This points out the interesting fact that only about one-fourth of the wage-earners in the Dominion are unionists, and for them alone the State provides the elaborate and costly system of the Arbitration Court. In spite of the latter, industrial warfare is regrettably common. There is not much to report regarding prices. The slump in the building trade is responsible for the price of corrugated iron being down, Bristol crown and equal second grades being sold as low as £29, basis of 8 fts. Indications point to better business when the winter is over.

Dunedin, July 15, 1927.

Midwinter conditions invariably affect the retail trade, and on that account city business has been below the average. On the other hand several substantial contracts are proceeding apace, creating a considerable demand for the larger and heavier material required therefor. Unemployment as usual at this time of the year has been accumulating; many casual workers flock to the towns from the country and so aggravate the situation. Dunedin citizens, however, are contributing liberally toward the unemployment fund, which is augmented by a grant of £1 for £1 from the Government. The money is spent on roads and other services for the benefit of the community as well as the relief of those out of regular work. The erection of the City Hall is now in evidence, the foundations being well completed. But few changes in price have to be recorded. English bar iron has receded to 23/-, shoeing to 22/-, and steel to 23/-. Galvanised corrugated iron is similarly affected, first being priced at 33/- and second at 32/-. Plain galvanised iron is ranging from 35/-, 37/- to 39/-, while white lead (best) is at 61/- to 63/-. In oils, linseed, has advanced to 5/3, and castor to 5/6. Turpentine, however, has now fallen to 7/3.

Wellington, July 22, 1927.

New Zealand is passing through a quiet time consequent on the balance of trade being adverse. Exports declined and imports continued to come in in excess of what our exports would pay for. This state of affairs is bound to create a temporary depression, but it is fairly safe to assume that it will soon pass, as has been the case on previous similar occasions, such as in 1908 and in 1920-21. Business is quiet all round at present, but a revival is confidently anticipated in the spring. Stocks of all metal are fairly good, and prices of a few lines are easier. Galvanised iron is down £1, and adequate stocks are held. Wire nails are plentiful and 1/- cheaper. Fencing wire is in satisfactory supply, but naturally quiet at present, with plain unchanged, and barbed £3/10/- lower. Bar plate and sheet iron and steel are in fairly good supply, with no change in prices. Lead has eased, in sympathy with outside markets. White lead and red lead are £2 lower with stocks about normal. Linseed oil is in ample supply and 3d. cheaper. Turpentine shows an easier tendency in sympathy with lower rates in America. Other quotations remain fairly steady.

Brisbane, July 29, 1927.

July has proved rather a spasmodic month in the hardware trade, probably due to several causes, including drought conditions in the interior, industrial troubles in the north, and orders held back or restricted on account of stocktaking. Heavy hardware has been fairly good, and there are some large orders in hand for girders and other builders' lines. Prices are unaltered, and stocks ample. Bulk lines have been quiet for July with prices steady and stocks well up to requirements. Shelf goods have been slow as business has been very hard, and money scarce. Stocks are heavy and prices generally are unchanged. Glassware and crockery are slow, and stocks are far too large. We may expect some tall cutting to reduce before long. Farm implements have had a fair run, but are now easing up. All makers are holding ample supplies and prices are steady. Pastoral requirements are quiet, including fencing wires. No doubt owners are too concerned in providing relief to bother about improvements for the time being. Paints and oils have been in fair demand. Business people have been cleaning up for the agricultural show trade, and others are taking advantage of the cool weather to renew the appearance of their homes. Lead has dropped £2 per ton. Linseed oils are steady with good demand and stocks of all makes plentiful. Turpentine is rather overstocked at the moment, but prices are firm and demand good. Sanitary materials and accessories opened up well but have gone off, probably owing to the dispute between the Water and Sewerage Board and the plumbers over the appointment of non-qualified men as inspectors to pass their work. After a deadlock for the past fortnight the matter was adjusted to-day. Galvanised iron has been fair with stocks in full supply and prices unchanged. Carbide has been selling well with prices stationary, and stocks right for both colonial and imported brands. Woolpacks have been moving fairly well, but a shipment to hand has not affected the prices, which are about the same as last month. Stocks have improved.

Adelaide, August 1, 1927.

As anticipated in this column last month, business brightened up considerably during July. A very fair demand was experienced for most lines. Mild steel and galvanised iron have been moving freely at list prices. As a sign of general acceleration of business a steady revival of inter-house activities has been noted. A fair parcel of 8 and 10 gauge galvanised wire changed hands through a broker at £16/15/- and £17/15/- per ton respectively and similarly 20 miles of 36 x 1½ x 18g. netting was placed at £27 10/-. For 42 x 1½ x 18g. £32/12/6 was charged. Little business has been transacted in black or galvanised tubing. Cement clearances have been up to usual, however. Ingot tin opened for the month at £300 per ton and closed at £293. With the extremely low prices ruling for lead the Australian leadware manufacturers reduced their prices a further £2 per ton. White lead, linseed oil and turpentine have remained steady. Fifty cases of turpentine (new season) were sold at 5/3, and three tons of "Lux" carbide at £31/10/-. Shelf goods were cleared in satisfactory manner.

Melbourne, August 2, 1927.

No hardware business of great importance was transacted during the month of July. In iron and steel the dealings were inconsiderable, and many sales in these metals and other heavy lines were for interstate buyers. Barbed wire was lower in price by from 10/- to 20/- per ton. Handlings of plain fencing wire included parcels of five tons, and occasionally 10 tons, the figures realised being:—No. 8 galvanised, £16/15/-; No. 9, £17/5/-, less discount; and No. 10, £17/10/-. Black wire, which was in rather short supply, sold in similar quantities at 22/6 per ton lower. In wire netting also small parcels prevailed. For 2 or 3 miles the values were:—42 x 1½ x 17, £42; 42 x 1¼ x 17, £49; 30 x 4 x 16, £19/5/-; 36 x 4 x 16, £22; 12 x 1¼ x 17, £19/10/-. A better demand for fencing materials is confidently expected owing to the recent general rains. Several dealings were noted in mild steel plates and bars. Steel plates were sold on a basis of £14 per ton. One line of 25 tons ⅝ round mild went at £15, and another of 10 tons ⅞ at £17. Lead showed a

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decrease in price, in sympathy with the general decline throughout the world. A parcel of pig lead, 5 tons, sold recently at £26/15/-. Lead pipe was sold at £42, and sheet lead at £37. Galvanised iron of 26 gauge was also lower, 10-ton lots of various lengths changing hands at £26 per ton. Sales of ingot tin realised from £282 to £287. In building materials, such as cement and plaster, little business has been transacted. Australian cement in handlings of 500 bags was selling here and there at 17/6; K.W. plaster, 50 casks, at 34/-, with but moderate demand. Paints and oils have not been much inquired for, and in several cases prices show a lower market. Champion's white lead may be quoted as an example, three-ton lines of this product selling at £63/10/- basis. English red lead brought £50. A discussion and arrangement regarding prices of linseed oil is reported on another page. Other prices which may be of interest are those for iron pipes. Moderate inquiry only was experienced, and sales were small. In lots of 10,000 ft. ¾ in. and 1 in. black pipe was handled at 62½ per cent. off list, while galvanised pipes from ½ in. to 1 in. were sold at 55 per cent. off. A line of Winchester rifles was sold during the month for another State. These were purchased at 25/- for 1902 pattern and 30/- for that of 1904. Wire nails were inclined to recede in price, being quoted at a basis of 18/-. Carbide, of Tasmanian manufacture, was selling at £27.

The Month's Cablegrams

Copper, Tin, and Silver. — The following table shows the quotations at the undermentioned dates, compared with those of the corresponding periods last year:—

Date.	Copper. Electrolytic. Per Ton.		Tin. Standard. Per Ton.		Silver. Standard. Per Ounce.	
	1926	1927	1926.	1927.	1926.	1927
	£	£	£ s. d.	£ s. d.	d.	d.
June 29..	64½-65	59½-60	272 2 6	297 16 3	30⅞	26⅛
July 4..	64½-64¾	59½-60	273 11 3	295 5 0	30⅞	26
„ 8..	65-65½	59¾-60¼	277 11 3	286 7 6	30⅞	25⅞
„ 15..	66-66¼	60-60½	280 11 5	290 7 6	29½	25⅝
„ 22..	66-66¼	60½-61	287 11 3	287 11 3	29¼	26⅛
„ 29..	67-67½	61-61½	291 15 0	292 2 6	29⅛	25⅞
Aug. 3..	67¼-67¾	62¾-63¼	297 12 6	297 12 6	29⅛	25⅝

The stocks of tin in the United Kingdom at the end of June were 13,778 tons, the deliveries for the month 2009 tons, the quantity on spot 833 tons, and the quantity afloat 2000 tons.

Lead.—In the London market soft foreign lead on spot has been quoted as follows:—July 4, £23/3/9; July 8, £22/17/6; July 15, £23/2/6; Juiy 22, £24/7/6; July 29, £24/6/3; August 3, £24/6/3.

For the month of June the imports of lead into the United Kingdom were 20.591 tons, including 9711 tons from Australia. The exports were 2147 tons.

Spelter.—The spot quotations for spelter, as cabled from London, have run as follows:—July 4, £27/16/3; July 8, £27/13/9; July 15, £28/3/9; July 22, £28/13/9; July 29, £29/10/-; August 3, £29/7/6.

Tallow.—Following are the statistics for July, and particulars of the latest auction sales:—

July	Casks.	Date.	Casks Offered	Casks Sold.	Mutton, Med., per cwt.	Beef Med per. cwt
Imports	2403	July 6	Nil			
Deliveries	1121	„ 13	Nil			
Stock	9325	„ 20	Nil			
		„ 27	1489	593	31/-	31/-
		Aug. 3				

Travellers

In New Zealand.

Mr. Edward Houchins, representative in Australia of Paraffine Cos. Inc., of San Francisco, U.S.A., has returned to headquarters, Challis House, Sydney, after an extended business trip to New Zealand.

To America.

Mr. G. R. Smith, of Edward Duckett & Sons, Melbourne, is now on his way to America. Accompanied by his wife, he left Sydney in the s.s. "Niagara."

From Europe.

Mr. L. A. Jacobsen, representing the Danish Machine Co., manufacturers of machine tools, Copenhagen, Denmark, arrived in Sydney via the East Indies by the s.s. "Tasman" on July 6. We understand the purpose of Mr. Jacobsen's visit is to investigate the possibilities of the Australian market.

Selecting and Using Babbitts.

(From an Exchange.)

There is no economy in using a high grade babbitt where a low grade alloy will suffice. A cheap babbitt metal may give almost indefinite service under a condition of light load and no impact, but would quickly fail if installed in a bearing subject to high pressures and speeds.

A good bearing metal must have plasticity to enable it to adjust itself to imperfections. This property is obtained by scientific alloying in the best grades of babbitt. The maximum pressures allowed on main shaft bearings in steam and gasoline engines is from 350 to 700 lb. per sq. in., depending upon speed, nature of lubrication, and operating temperature.

For high speed machines only light loads can be used on the bearings. The allowable pressure for motors is sometimes as low as 40 lb. per sq. in. With too great a load at high speed the babbitt will soften with the increased temperature. All of the babbitt alloys have only about one-half the compressive strengths at 212 deg. F. that they have at 70 deg. F., so that a bearing to run at high temperatures must have generous proportions.

For casting the bearings the babbitt should be melted quickly and cast at once. Prolonged heating is injurious to the alloy. Babbitts high in copper require a high pouring temperature, and stirring before casting. The mould should be heated and then cooled down to between 200 and 500 deg. F. before pouring the babbitt. Thin bearings require the hottest moulds.

Prosperity in the Netherlands East Indies.

Satisfactory crop prospects in the Dutch East Indies are encouraging merchants to buy rather more freely, and the recent slackness in the cotton piece goods business has given way to more active conditions. Internal prosperity is revealed even more distinctly, however, when lines other than piece goods are considered, and it is particularly noteworthy that building materials continue in active request. Many public works schemes are being carried out, and the fittings imported for the new office and other buildings being erected are of the most modern description. Road-making progress, in addition, has stimulated the demand for motor vehicles, and the 1927 imports of these will probably exceed those of 1926 when 10,000 passenger cars and over 2000 lorries were purchased from oversea.—"The British Export Gazette."

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Australian Market Prices

N.B.—The prices given in these columns are mostly those at which wholesale merchants are prepared to supply ordinary parcels to storekeepers, or other retail dealers. In a few cases we give the quotations of manufacturers or their agents. Preference as well as general duties are shown in the "Duty" column. The first rate is that on goods from the United Kingdom, and the second is the general rate on goods from foreign countries. "F" represents free, and "F 10 %" free from the United Kingdom and 10 % from other countries.

	Duty	Sydney Aug. 1	Melbourne Aug. 2	Adelaide Aug 1	Brisbane July 29
Pig Iron	₰/. 40/	£	£	£	£
British		...	7 5/	7 10/	...
Swedish		...	...	...	...
Lithgow		7 10/	7 5/	...	...
Newcastle		7 10/	7 5/	7 10/	...
Bar and Rod	44/, 120/	23 basis	English 21	21	22/10 basis
Australian		...	18/6	17 10/	...
Mild Steel	44/. 120/				
Bar		19 10/basis	19/ basis	18 10	18
Angles		19 10/	18	19	19
Tees		21	18	20 10	20
Hoops	F., 10%				
Black		20 basis	19 basis	19/6	21/ basis
Galv.		31/6 basis	35	33/6	31 10/
Galv. Corr. 24g.	20/, 60/	30/]	29 10/	28 15/	
Orb 26 g		27	30	30 15/	30 5/
,,		28 10/	30		31 10/
Adams Mars		...	...	...	...
Phoenix Cr.		29 15/	30	28 15/	32
Galv. Plain 24g.	20/, 60/	30/]			
Queen's Hd.		29/	31	31 15/	33
Phoenix Cr.		31 5/	33	...	...
Fleur-de-lis		28 10/	...	31 5	33
Other		...	31 10/	...	43/
Sheet	F., 125/				
Black		27 basis	25 basis	26	26
Baldwins		B26, G34 5/	26 10/	...	19
Plate	F,. 120/	basis			
Steel		18 basis	15 basis	15	15 10/
Girder		19/6	21	19	20/-
Fencing Wire	F., 120/				
American 8		18 5/	18 5/	..	..
,, 10		19 5/	19 5/	..	...
Austra'n8 Bl.		15 12/6	15	15 10/	15/10
,, 10 ,,		16 12/6	15 10/	16	16/10
Galv. 8		17 17/6	14 10/	17 10/	18
,, 10		18 17/6	15 10/	18	19
,, 12		20 2/6	18 10/	20	20
Barbed Wire,	68/, 180/				
Amern. 12-g.		24			25 10/
,, 14-g.		25 10/	...	...	26 10/
Austn. 12-g.		24 10/	22 10/	24	25 10/
,, 13-g.			23 10/	25	26 10/
,, 14-g.		26	24 10/	26 10/	26 10/
Wire Netting	F., 200/				
36 x 1½ x 17	per. ton		36 15/	28	
36 x 1½ x 18			29	50	New List
42 x 1½ x 17			49 10/	...	
42 x 1½ x 17		20%	41 10/	42	
42 x 1½ x 18		off	34	33 10	
36 x 1½ x 17		list	35	...	10 to 15%
36 x 1½ x 18			28		Off List
36 x 2 x 18			22 10/	23	20%
36 x 2 x 19			20	20 15/	Off List
Nails—					
Horshoe	12/, 15/	2½% on list	to 1/lb.	1/ less 10%	List Price
,, Austn.		...	List	...	plus 5%
Wire	5/6, 8/				
,, Austn.	or25%,35%	28/6 basis	18/ to 20/	24/6 to 35/	30/- basis
Roofing—	5/6. 8/				
Evenden		74/6 cwt.	65/cwt., 9/6	9/-	11/
Lead-head		...	...	...	44/
Block Tin	Free	295	301	300	3/
Tin Plates, 28 x 20—	F., 10%				
I.C. Coke	28 x 20	112's 67/6	50/	112's 52/6	27/
I.X. Coke	56s	47/6	70/	...	42/
Pig Lead	Free				
Austn.		40	42	32/	37/10
Sheet Lead	10%, 20%	44	50	45 15/	53/
Dampcourse		4½" 7/-			
2 lb.		4½" 10 6	48		
3 lb.		10/6 Roll	47		
Lead Pipe—	10%, 20%				
¼ to 2in. coils		48/	47 10/	50 5/-	62/
Lengths to 5'		50/	52	54 10/	68/
Compo. ¾" & up		53/	51	54 5/	75/
Copper—					
Ingots		...	70	97/6	10d.
Sheet	25%, 40%	1/6	1/7	1/8	1/8
Brass					
Sheet	25%, 40%	1/3	1/2 to 1/6	1/6	1/6
Zinc—					
Sheet 9 to 18g (7 x 3 & 8 x 3)	25,% 40%	60/	62 10/ to 65	67/	65/ cwt.
Perforated	35%, 45%	4/9	7	...	5/6
Spelter	10%, 20%	32	...	54/	...
,, Elec....		301/10/to 37	41 to 42	...	40/
,, Brazing	25%, 40%	1/9	1/5	...	1/9
Bolts & Nuts—		⅜" ½"	½ ⅝		
Cuphead 3"		75/, 59/	63/ 47/ 41/		
,, 4"	35%, 50%	76/, 57/	61/ 46/ 39/	...	26/3 to 73/
,, 5"		70/, 54/	56/ 43/ 37/		
,, 6"		65/, 49/	52/ 39/ 35/		
,, 6½" to 9"		6 /, 47/	49/ 38/ 34/		
,, 9½" to 12"		59/, 45/	47/ 36/ 32/		
Tanks, 400-gal.	Free	6 5/	4 10/		5
,, 200-gal.		3 5/	2 5/		3
Tubing—	F., 10%				
Black, up to 3"		55 off list	55% off	58⅓off	List 45% off
" 3½ & up	27½		60% off	35 off	.. 5% on
Galv. up to 3"		50 ,,	45% off	46⅔off	.. 10% off
" 3½ & up	27½	...	tst. List	20 off	Less 10% off
Steam, up to 3"		40 ,,	37½% off	37½off	.. 5% on
" 3½ & up	27½	...	5% off	20 off	.. 25% off
Wr'ght boil.		...	10% on	..	.. 15% on
Explosives—	F., 5%				5/
Hall's C.C.	10%	1/-	10½d.	1/-	1/1
Curtis's		10½d	10½d.	11½	1/
Chilworth's		10½d.	10½d.	...	1/1
Sporting	15%, 25%	3/6, 4/6	2/9 to 4/6	3/6 to 4/11	3/6 to 5/
Diam. S'less		10/	8/ to 8/6	8/3 to 8/6	5/
Amberite		8/6	7/ to 7/6	6/9 to 7/6	75/
Blast'g Gel.	F. 5%	72/6	74/6	74/6	78/6
Gel. Dyna.		65/	66/	66/	77/-
Gelignite		56/ to 59/3	56/ to 59/3	54/6 to 58/6	62/ to 65/
Dynamite		51/ to 57/	51/ to 57/	46/6 to 51/6	...
Detonators	15%, 25%	55/	55 to 60/	60/ to 85/	58/ to 102/
Shot—Chilled	5/, 6/	63/6	61	75/	90/
Australian		61/	56	...	...
Cyanide Pot.	Free	1/4	1/6	...	1/6
Quicksilver	Free	7/6	5/6	5/8	8/-
Sash Weights	35%, 45%	16/	22/6	16/6	18/6
Sheep Shears	F., 10%	62/6	62/6	60/	60
Cement—Impt'd	20%, 30%	25/ cask	21/6	22/6	21/ cask
Aust. (bags)		...	18/	7/4	6/6 bag
Plaster, Imp.	1/6, 2/c	37/6 K.W.	35/	47/6	50/ cask
,, Aust.		Pixie 35/-	8/	9/3	18/ bag
Slates (20 x 10)	30%, 40%				
White Lead—	8/, 10/, or				
Imported	25%, 30%	66/	65/-	71/6	70/
Australian		59/	65/	62/	64/
Zinc White	20%, 30%	...	70 to 100	...	72/, to 86/
Oils—					Colonial 56/
Linseed (raw)	9d., 1/		Drs.,		
Imported		R5/6	5/6	Drs., 5/9	5/3
Australian		C4/11 D5/11	C., 5/-	Drs., 5/6	4/9
Colza	6d., 8d.				
Burning		...	6/-	...	
Castor—	9d., 1/				
½-cases		C 6/3	6/3	7/	7/9
China	2s., 2/6	...	8/	...	...
Cotton seed	6d., 8d.	..	8/6 to 10/	...	10/
Kero.—C.O.R.	Free	...	13/	...	...
Laurel		13/	13/6 to 14/6	13/	13/6
Light of Age		13/	13/6 to 14/6	13/6	13/6
Pennant		13/	13/6 to 14/6	13/	13/6
Turpentine	F.,	5/9	5/9	6/-	6/-
Substitutes	½d., 1d.	3/	18/ per case	...	2/3
Shellac		3/	2/9	2/8	2/9
Whiting—	6d., 9d.				
English		9/	7/6	9 10/	£12 ton lots
Colonial		4/9	4/6	5/	...
Resin, G grade	Free	38/6	35	36/	37/6
Carbide—	80/, 150/				
"I X L"		32/6	27/6	29 5/	29, 7/6
Scandinavian		34/-	30/-	33 10/	33
Canadian		...	...	...	...
Japanese		...	...	...	...
Bluestone—	100/, 200/	...	...	...	...
Macclesfield		37/6	37/	...	40/
Australian		36(1 cwt c/s)	...	37/6	...
Japanese		...	...		
Stock. Tar, 42 g.	25%, 35%		1/5	...	
Woolpacks—	Free	...	...	...	...
42 x 11½		...	6/	5/9	...
54 x 11½		5/3	4/6	4/9	6/4
Cornsacks—	Free				
2¾ lbs. (Oats)		...	...	...	...
2¼ lbs		10/6	10/6	11/6	12/
Branbags	Free	9/3	8/6	8/6	9/ to 10/

Small buyers requiring credit for broken parcels must expect to pay more than prices here quoted.

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Business Register

If you correct them monthly by these pages you will have lists more up-to-date than any Directory. Some leading firms do this.

New South Wales

Colin Maxwell & Co., manufacturers' representatives, of 204 Clarence-street, Sydney, are removing to roomier premises at 379-81 Kent-street. They will occupy the fourth floor and expect to be settled in their new offices about the middle of August.

Firms Registered.

John Keene, ironmonger, 15 Hall-street, Bondi Beach; proprietor: Albert E. Keene.

W. Adler, ironmonger, South Terrace, Bankstown; proprietor: Theodore L. W. Adler and Edgar Bell.

Beacon Lead Works, manufacturers of metal products, Spencer-street, Five Dock; proprietor: Laurence Seale.

Neate's, chinaware and glassware merchants and household ironmongers, 82 Haldon-street, Lakemba; proprietor: John F. Neate.

E. A. Bourne & Co., timber, joinery and hardware merchants, etc., Baylis-street, Wagga Wagga; proprietors: Wagga Trust Co. Ltd.

H. Patrick, "The State Crockery Store," crockery and glassware merchants, etc., 166 Haldon-street, Lakemba; proprietor: Herbert K. Patrick.

Austral Gate & Fence Co., ornamental gate and fence manufacturers, 242 Enmore-road, Enmore; proprietors: Edwin S. Coyle and William C. Harrison.

Earlwood Hardware Co., ironmongers and crockery and glassware merchants, Homer-street, Earlwood; proprietors: Henry B. Barnett and Helen M. Barnett.

Northside Store, ironmongers, crockery merchants and grocers, Northumberland-avenue, Auburn; proprietors: Abraham Heiser, Reynold B. Heiser and Leon D. Heiser.

Company News.

T. B. Browne Ltd., advertising agents, have removed from 333-37 George-street, to Bank of Adelaide Chambers, George and Margaret-streets, Sydney.

Refrigerators Ltd. have been registered with a capital of £3000 in £1 shares. Objects: To carry on the business of refrigerating engineers and manufacturers of refrigerating machines, etc. Subscribers: Alexander C. Frew, Franklin Jackson, Stanley E. Speare, Joseph P. McNamara, L. Robinson, H. Denham and A. J. Dadd. Reg. office: Sydney.

General Industries Ltd. have been registered with a capital of £2,000,000 in £1 shares. Objects: To acquire preference and/or ordinary shares fully paid or contributing in Metters Ltd. or K.F.B. Foundry Ltd., and shares, debentures or debenture stock in any other company, etc. Subscribers: Henry L. Spring, Robert A. Spring, Norman H. B. Keysor, C. A. Fuge, F. C. Brown, Charles L. Edwards and Edward Forrest. Reg. office: Sydney.

S. Hoffnung & Co. Ltd., have been advised by their head office in London that the gross profit for the year ended March 31 amounted to £147,232, compared with £149,667 the previous year. After deducting head office expenses, British income tax, and other charges, there is a nett profit of £111,284, compared with £112,105 a year previously. The preference dividend is 7½ per cent., the ordinary 15 per cent. together with a bonus of 1/- a share or 20 per cent. in all. A sum of £13,000 is carried to reserve, £15,000 to ordinary dividend special reserve, and £50,366 is carried forward. The transfers to reserves are the same as the previous year.

New Zealand

Company News.

United Brush Co. Ltd. have been registered with a capital of £4500 in £1 shares. Objects: To acquire and take over as a going concern the business now carried on by T. Burt and J. W. Munt as brush manufacturers and incidental. Subscribers: T. Burt and J. W. Munt. Office: Inglis Buildings, 220 High-street, Christchurch.

Ideal Patent Fencing Co. Ltd. have been registered with a capital of £5000 in £1 shares. Objects: To acquire from Jas. Christie & Co. the rights of process evidenced by letters patent being a process for "an improved fencing standard," to obtain further rights, and to carry on the business of manufacturing the material in all branches. Subscribers: J. W. Sandtmann, T. A. Heath, A. E. Lawry, L. T. Bisson, J. Christie, A. F. Bowman, and A. Loudoun.

South Australia

Butler & Garnham, tinsmiths, off Holland-street, Adelaide, have been registered under the Firms Act; proprietors: Edward Colston Butler and Alfred Garnham.

The Enterprise Wire Mattress Manufactory, wire mattress manufacturers, Mile End, announce that James Alfred Holt has retired from the firm. John Harold Kernick is the continuing member.

Company News.

Atkins Ltd. have been registered with a capital of £75,000 in £1 shares. Objects: To carry on the business of oil, colour and general merchants, and to adopt and carry into effect a certain agreement, etc. Subscribers: Arthur Henry Messent, David Shearer, Hazel Ernestine Mead, Marian Annie Clutterbuck and Stanley Clutterbuck. Reg. office: 55-57 Pirie-street, Adelaide.

Australian Mica Ltd. have been registered with a capital of £5000 in £1 shares. Objects: To carry on the business of mining for, cutting, preparing, dealing in and exporting mica and compounds, and to carry on all or any of the businesses of iron founders, mechanical engineers, manufacturers of electrical and other machinery, motor car hoods and curtains, and every description of article in the manufacture of which mica is employed, etc. Subscribers: Madge Ellen Webb, Constance Hilda Hayward, Doris Gertrude Sainsbury, Irene Florence Walpole, and Alfred Ellis Mercer. Reg. office: 1 Brookman Buildings, Grenfell-street, Adelaide.

Tasmania

P. J. Nicol, storekeeper, Smithton, has been registered under the Firms Act; proprietress: Jane Emma Nicol.

Victoria

Firms Registered.

Electric & Hardware Co., 429-431 Bourke-street, Melbourne; proprietor: Arthur Clarence Fenton.

Young's Hardware Stores, 6 Portman-street, Oakleigh; proprietors: Alan James Young and Stanley George Young.

Tharratt's, timber, hardware and crockery merchants, 379-381 High-street, Northcote; proprietor: Wallis Henry Tharratt.

L. Main & Son, ironfounders, 3 High-street, Northcote, and 63 Budd-street, Collingwood; pro-

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prietors: Henry John Leslie Main and Edward David Meldrum.

Company News.

A. G. Healing & Co. Pty. Ltd. announce that the name of the firm has been changed to A. G. Healing Ltd., and the capital increased from £200,000 to £500,000.

T. Benton Fawcett Pty. Ltd., ironfounders, mechanical engineers and machinery manufacturers, etc., have been registered with a capital of £5000 in £1 shares. Subscribers: Thomas Benton Fawcett and Douglas Richardson. Reg. office: Jones-lane, Melbourne.

E. P. Bevan & Son Pty. Ltd. have been registered with a capital of £100,000 in £1 shares. Objects: To acquire as a going concern the business of machinery merchants, carried on by Bevan & Edwards Pty. Ltd. Subscribers: Edward Philip Bevan and Amy Constance Bevan. Reg. office: 117-129 King-street, Melbourne.

Metal Sprayers Anti-Corrosion Pty. Ltd., metal sprayer and machinery manufacturers and ironfounders, etc., have been registered with a capital of £30,000 in £1 shares. Subscribers: Robert Henry McCamish, Norman David MacKay, Picton Hughes Hopkins, and James Cameron. Reg. office: 422 Collins-street, Melbourne.

The Parkinson Stove Co. (Australia) Ltd. have been registered with a capital of £100,000 in £1 shares. Directors: Sir Henry Cowan, Frederick Richard Smith, John Andrew Macleod, William Wallace Parkinson, Franklin Thorp and Daniel MacCallum Gibb. Head office: 12 Fitzalan-street, Kennington-road, London. Agent in Victoria: James Marshall Macfarlane, 501 Little Collins-street, Melbourne.

Union Can Co. Pty. Ltd. have been registered with a capital of £200,000 in £1 shares. Objects: To acquire as a going concern the business of canister manufacturers and engineers carried on at Ferrars-street, South Melbourne, Pilgrim-street, Footscray, and at Port Adelaide, S.A., under style of Union Can Co., Art Packet Co., and Gardner & Co. Subscribers: George Gardner and Sidney Wolton Gullett. Reg. office: Ferrars-street, South Melbourne.

Sunshine Porcelain Potteries Pty. Ltd., manufacturers and importers of electric porcelain insulators, etc., have been registered with a capital of £60,000 in £1 shares. Objects: To acquire as a going concern the business carried on by Sidney John Plain, Frank Howell Plain, Edward Henry Martin Drayton, and William John Drayton, at Sunshine. Subscribers: Sidney John Plain, Frank Howell Plain, Edward Henry Martin Drayton, and William John Drayton.

Western Australia

The Economic Stores (W. E. Bartlett), Collie, have purchased the hardware and fancy goods stocks of Lyle Wall, Collie.

Hoskins Iron & Steel Co. Ltd. (incorporated in N.S.W.) have their registered office at 20 Howard-street, Perth. H. H. Wheatley, R. McDonald, and T. S. Louch are the attorneys.

Leslie & Co., engineers, engineering merchants, and contractors, Palace Chambers, St. George's-terrace, Perth, announce that Ernest Arthur Randell has retired from the firm. William Leslie and William McLauchlan Couper are the continuing members.

Firms Registered.

Cowderoy's General Store, Carnamah; proprietors: Eva Cowderoy and Albert Cowderoy.

McGavin & Co., general storekeeprs, Ballidu; proprietors: Alex. McGavin and A. M. McGavin.

Kelly & Rodoreda, china and glass importers, Otley-place, Perth; prorietors: Edward Kelly and Leo Rodoreda.

Bladon & Selwood, manufacturers of tinware, galvanised hollow-ware, and sheet metal workers, 74 Derby-road, West Subiaco; proprietors: Edward Henry Bladon and Albert Uriel Selwood.

Agents and Agencies

Mr. T. C. Brown, Broughton House, Clarence-street, Sydney, has recently been appointed Australian representative for Moore & Wright, manufacturers of precision tools, Sheffield, who also are the sole distributing agents of the Avia Steel & Tool Co. Ltd. Mr. Brown has now full sample ranges of these firms' products in his showroom and copies of their latest catalogues are available on application.

Mr. S. Scott-Young, well known in hardware circles throughout Australia and New Zealand had a severe breakdown in health early in the year, and, on the doctor's orders, had to retire from business. He is gradually improving, according to last reports, but is still confined to his residence at Mosman. Because of this it was decided to wind up S. Scott-Young Ltd., which decision was put into effect on February 28 last. His son, Mr. M. Scott-Young, being in charge of the New Zealand office, is carrying on the agencies for the Dominion on his own account at the old address, Bank of New Zealand Chambers, Manners-street, Wellington. These agencies are as follows:—

James Cartland & Son Ltd., Birmingham.
J. & J. Siddons Ltd., West Bromwich.
Moore & Wright, Sheffield.
Froggatt & Tyler Ltd., Bilston.
Chas. Smith & Sons Gunmakers Ltd., Birmingham.
Louis de Brus & Co., Liege.
Hope Works Co., Dudley.
Rostron & Co. (Darwen) Ltd., Darwen, England.
C. S. Norcross & Sons, Bushnell, Ill., U.S.A.

Mr. J. Ross Duggan, recently vice-president of the Westinghouse Union Battery Co., of Pittsburgh, Pa., U.S.A., reached Sydney on July 1 by the s.s. "Port Melbourne" from New York, and has established himself as factory representative for the undermentioned firms at Cathcart House, 11c Castlereagh-street, Sydney. Having visited the Commonwealth on several occasions, Mr. Ross Duggan is familiar with the Australian trade, while Mr. P. D. Edwards, from the New York office of the Westinghouse Electric Co., whose services he has engaged, is a native of New Zealand.

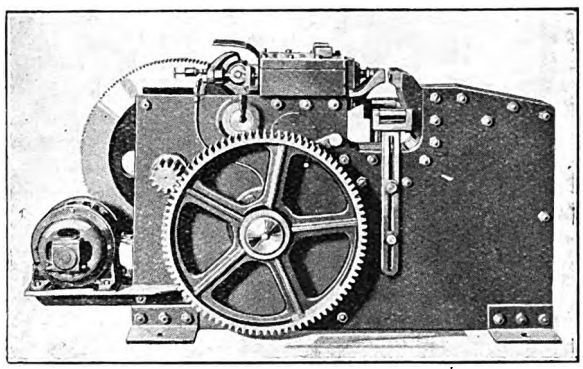
Brunner Mfg. Co., Utica, N.Y. ("Brunner" Air Compressors)
Lockwood Motor Co., Jackson, Mich. ("Outboard" Motors)
National Twin High Sales Corp., Syracuse, N.Y. ("Hi-lo" Transmission, for Ford Trucks)
U.S. Chain & Forging Co., Pittsburgh, Pa. (Tyre Chains)
Federal Telephone & Telegraph Co., Buffalo, N.Y. (Telephone Systems)
Friedley-Voschardt Co., Chicago, Ill. ("Kleen-Kwick" Dish Washer)
Lamson Co., Syracuse, N.Y. ("Icemaid" Refrigerator)
Parr Electric Export Co., New York, N.Y. (Electrical Products)
Syracuse Washing Machine Co., Syracuse, N.Y. ("Easy" Washer)
Waters Arc-Welding Corp., New York, N.Y. (Electric Welders)
American Foreign Sales Corp., New York, N.Y. (Railway Supplies)
Clemson Bros. Inc., Middletown, N.Y. ("Star" Hacksaw Blades)
Berger Mfg. Co., Canton, Ohio (Filing Cabinets and Metal Goods)
Adam Cook & Son Inc., New York, N.Y. ("Albany" Greases)
Misener & Irving Mfg. Co., Syracuse, N.Y. (Rotary Hack Saws)
Federal Radio Corp., Buffalo, N.Y. ("Federal" Ortho-Sonic Radio)
Hytron Corp., Oakland, Mass. ("Hytron" Radio Tube)
United Radio Corp., Rochester, N.Y. ("Peerless" Loud Speaker)

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Machinery

New "Buffalo" Horizontal Punch.

The Buffalo Forge Co., of Buffalo, N.Y., U.S.A., are adding to their line of "armour-plate" punches, shears and bar cutters a horizontal punch. This new punch is designed for convenience in punching flanged pieces, boiler heads, curved angles, beams, channels and other shapes which cannot be handled to advantage by a vertical machine.



All gears, flywheels, etc., are below the top of the machine and do not interfere with handling any shaped or bent sections. Architectural jaws allow punching close to corners of angles, I-beams, and channels in webs and flanges, and of H-sections in flanges.

The "Buffalo" semi-floating punch head permits lowering the punch for the accurate locating of centres. The punch is engaged by a foot trip. A cast steel rocker arm on a bronze-bushed king pin which is stationary in the frame operates the punch. The frame is reinforced at this point by welded discs.

Wear of the ram is taken up by bronze-bushed eyebolts, a new feature on all "Buffalo" machines. Gibs on the plunger make it adjustable for wear. Gears are machine cut from steel castings. Pinions are steel forgings. All bearings are bronze-bushed and flywheel bearings are of the ring-oiling types.

The frame is made up of two heavy "armour-plate" steel plates, rolled to the firm's own specifications. These frames are guaranteed positively unbreakable. Since the work usually handled on this machine requires only a short throat, the standard machines are thus equipped. Larger throats can easily be made, since the "armour-plate" construction does not depend on castings.

The new machine is built in four sizes with varying capacities and specifications, the length ranging from 6 ft. 3in. to 10 ft., and the weight from 32 cwt. to 125 cwt.

Bench Stand for Portable Drills.

The Van Dorn Electric Tool Co., of Cleveland, Ohio, U.S.A., have introduced a bench drill stand, intended for use with the ¼, ⅜ and ½ in. portable electric drills manufactured by this company.

Two screws in the top head and two screws through a clamp bracket hold the drill rigidly in place. The design is such that the line of pressure is brought directly over the twist drill. A tension spring lifts the drill out of the work instantly when the handle is released.

The stand weighs 56 lb., and its shipping dimensions are 40 x 11 x 15 in.

Calibration of Testing Machines.

The testing of the physical properties of materials used in the construction of machinery, apparatus and structures supplied or erected under contract, is an undertaking the accuracy of which may determine the acceptance or rejection of the materials, or influence the verdict in a lawsuit arising out of the contract. The vital importance, therefore, of ensuring that testing machines shall be accurate, or more precisely that they shall be comparable with each other as to accuracy will be recognised, and has, in fact, received the careful attention both of manufacturers and purchasers. At the request of the New South Wales Railways Department, the problem of arranging that the testing machines of the principal laboratories of the Commonwealth shall be periodically calibrated was undertaken by the Australian Commonwealth Engineering Standards Association.

The association made a careful investigation of the various factors involved, and consulted the authorities controlling the principal testing laboratories in all States. Recommendations were then formulated, based on the data and opinions so collected. Since the Association does not undertake any testing work, it entered into negotiations with the Munitions Supply Board of the Defence Department. The recommendations formulated by the Association, with slight modifications acceptable to both parties, have been approved by the Board as follows:—

1. That the Amsler Standardising Box be adopted by the A.C.E.S.A. as the means for calibration of testing machines in Australia.

2. That two of each of the following sizes be held for this purpose: Tension boxes, 10, 30, and 50 tons. Compression boxes, 30, 100, and 300 tons.

3. That all such Standardising boxes carry N.P.L. certificates.

4. That as far as is practicable, there should be in each testing centre (capital city), a set of Amsler boxes of capacity corresponding to the above up to the capacity of machines in use in that city, with maxima of 50 tons tension and 300 tons compression.

5. That from time to time such secondary standard boxes be forwarded for comparison with the primary standards, that is, with the boxes having the N.P.L. certificate.

6. That wherever the N.P.L. certified Amsler standardising boxes are to be held, it will be necessary to have either testing machines up to 50 tons tension and 300 tons compression, or some machine capable of applying loads up to those figures in order to be able to check Amsler boxes from a testing centre against the N.P.L. certified boxes.

7. That subject to the conditions of the preceding paragraph, the custodian of the N.P.L. certified Amsler standardising boxes be the Munitions Board Laboratory of the Department of Defence.

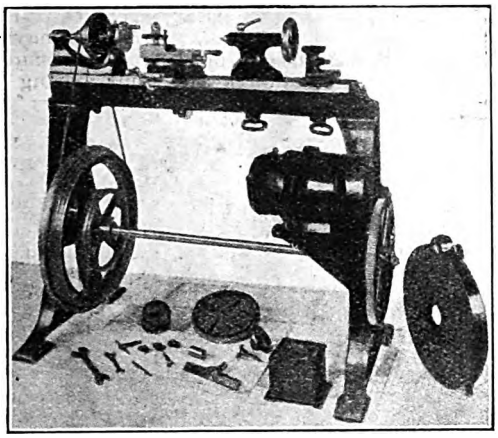
In accordance with the provisions contained in these recommendations, the Defence Department was requested to take steps to provide that the Munitions Supply Laboratories, Maribyrnong, be equipped to act as the central authority in connection with the periodical calibration of machines used for commercial testing purposes throughout the Commonwealth.

This the Department has agreed to do, and the necessary apparatus is being installed.

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New 5 in. Lathe.

Henry Milnes, of Bradford, England, announce a new 5 in. lathe intended mainly for training purposes. In outline the machine follows the usual present-day practice. The driving arrangements are very convenient and compact, a self-contained motor being employed. This is carried on a bracket below the left-hand end of the bed, power being transmitted through pinion and gear, both suitably guarded.



A range of five speeds is transmitted to the head stock through a ½ in. round belt. The head-stock spindle has a conical neck at the front end, this being hardened and ground, and running in a hardened and ground steel bush. The tailstock spindle is operated by a square-thread screw, the centre being self-ejecting. The locking device is of an improved type. The compound slide rest is located in the right-angle position by means of a tongue integral with the bottom slide and fitting between the shears of the bed. The top slide has a graduated base for taper turning, and the tool is clamped by a single stud tool-holder with adjusting screw. The feed screws have square threads, the cross slide being lengthened to protect the screw. The tail-stock and head-stock spindles have standard Morse tapers. A hand rest with tee-pieces is included and, like the tail-stock, is secured by clamps having large and convenient handles. The height of centres is 5 in., and the length of bed 3 ft. 6 in., admitting 2 ft. between centres.

Light Alloy.

A wrought light alloy known as "Lautal" has recently come into prominence in Europe. It contains 4 per cent. copper, 2 per cent. silicon, and the remainder commercial aluminium. It has the property of age-hardening under some conditions. After casting, the metal is worked by rolling or pressing, and is then brought up to its maximum strength by quenching at 500° C. The parts are then artificially aged by heating in an oil bath for 16 hours at 120 to 130° C.

The fully-aged variety has an ultimate strength between 55,000 and 60,000 lb. per sq. in., with a yield point between 30,000 and 38,000 lb. per sq. in. The elongation varies between 18 and 25 per cent., and the Grinell hardness number between 90 and 100. By suitable annealing, the hardness may be reduced to 50 Grinell for drawing operations. Rolled into sheets, "Lautal" is very brittle, but has a strength of 90,000 lb. per sq. in. The alloy has corrosion resistance qualities about equal to other similar aluminium alloys.

New Wrench Kit.

The Bonney Forge & Tool Works, of Allentown, Pa., U.S.A., have added a new wrench kit to their line of similar tools.

The kit consists of three right-angle wrenches, made of chrome-vanadium steel, and of the double-end type. They vary from the conventional open-end type in that the jaws are at right angles to the handle.

These wrenches are guaranteed to be stronger than the nut or bolt they fit, stripping the thread or breaking the bolt without damage to the wrench.

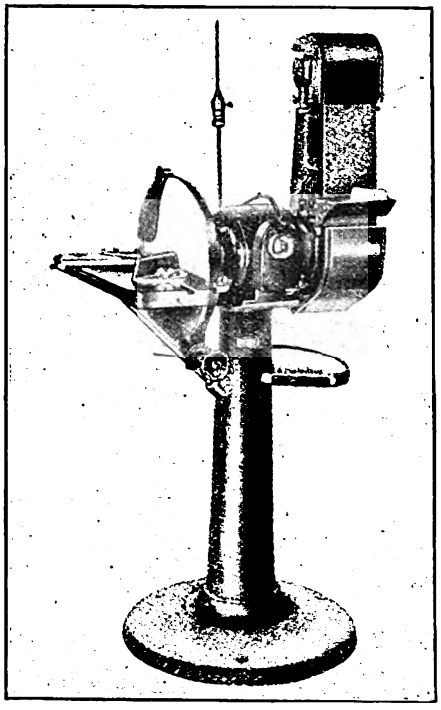
Combination Belt and Disc Grinder.

The Porter-Cable Machine Co., of Syracuse, N.Y., U.S.A., are marketing a combination belt and disc grinder and sander. This permits rough and finish grinding at the same time on the same machine.

The disc side of the machine has a table which tilts up and down through a range of 55 degrees, or it may be removed entirely in order to use the whole face of the disc. An angle gauge and a core print gauge operating in a slot in this table make it possible to secure compound angles and a variety of curves. The table measures 9 x 20 in. and is 38 in. from the floor. The disc is 15 in. diameter, and operates at a speed of 1725 r.p.m. An extra metal disc and six abrasive discs, together with cement, are regularly furnished with the machine.

The belt is driven by a pulley 7½ in. diameter, and runs over an idler pulley 4 in. diameter. The belt side also has a table, measuring 7 x 4 in., which may be removed or tilted up to 30 deg. or down to 45 deg. The belt is 6 in. wide and, with a pulley speed of 1725 r.p.m., it travels at a rate of 3300 ft. per min.

When the table and upper dust gauge is removed pieces 18 in. in length may be machined. The bed



under the belt may be placed in either a horizontal or vertical position by removing four cap screws. Thus the capacity of the machine is enlarged and it is made more convenient for certain operations. Belts for both metal and wood are furnished.

Fans situated at the back of the disc draw the dust and force it through the floor. A 3 h.p. ball-bearing motor furnishes the power for both disc and belt.

The machine occupies a floor space of 30 x 20 in. and is 60 in. high. It weighs 300 lb. net.

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Publications Received

Metal-Working Machinery.

List OS, 1927, received from Henry Pels, of 32-38 Osnaburgh-street, Euston Road, London, N.W.1, illustrates several of that maker's latest metal-working machines—punches, hand lever plate shears, joist shears, horizontal beam bending and straightening machines, and plate splitting shears, a huge machine this last with various attachments. The central opening presents Pels' permanent exhibit at headquarters—six typical machines for different purposes.

Transport and Communication.

Bulletin No. 18 recently issued by the Commonwealth Bureau of Census and Statistics sets out the figures relating to transport and communication for the years 1916 to 1926 inclusive. Beginning with the Government railways in the different States, the publication proceeds to tramways, shipping and posts, telegraphs and telephones. The results are dissected for tabulation so that any service under this heading for any State of the Commonwealth and any particular year within the limits assigned may be readily traced. You may hear, for example, how many newspapers from overseas were delivered to people in New South Wales during the official 1924-25 or 1925-26. As will be gathered, the bulletin is a mass of figures, interesting for comparison and desirable no doubt on that account for the national archives.

Metal Statistics.

Now in its twentieth annual edition, "Metal Statistics," published by American Metal Market, of 11 Cliff-street, New York, U.S.A., is a cloth-bound volume of 544 pages 6 x 4. It tabulates particulars of the output, consumption, and prices of the various metals, ferrous and non-ferrous, within recent years. While following the lines of previous issues, it introduces several new tables which ought to increase its usefulness. The aim each year is to furnish statistics providing the information most generally required by producers and consumers, buyers, and sellers of metals and iron and steel products. All through the prices given are based on the daily quotations which have appeared in the "American Metal Market." Although dealing largely with America, the information given is not confined to that country. One table, for example, shows the world's production of lead for the years 1916 to 1925 inclusive. Australia appears in this list with an output for 1925 of 165,634 tons. And so with copper, tin, and zinc. A buyers' directory to the products sold by firms who advertise in the book is added on coloured paper.

Forty Years of Wunderlich Industry.

This title is borne by a fine volume of 200 pages about 10 x 7 which the directors of Wunderlich Ltd. are issuing gratis to clients and others. It is largely pictorial, containing illustrations of the work done by the company in different parts, the factories and plant responsible, and the men who have most to do with the prosecution of the work in the various States.

It was in 1885 that the founder of the business, Mr. Ernest Wunderlich, came to Australia as agent for several European manufacturers, including a maker of zinc roofing. From this the industry really grew, for it was with ornamental zinc work that manufacture was begun. In 1887 Mr. Alfred Wunderlich came out from London to join his brother, and in 1900 the third brother, Dr. Otto Wunderlich, appeared on the scene. The last-mentioned, a doctor of medicine, paid a visit to Australia and was so impressed with the possibilities of the work on which his brothers were engaged that he offered to cast in his lot with them. The offer being accepted, he returned to London only to dispose of his practice, and was back in Sydney within a few months. His training and scientific turn of mind have been of great benefit to the business. Since the formation of the present company in 1908 the three brothers have held office uninterruptedly as managing directors.

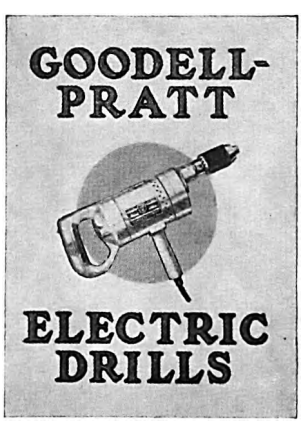
Beginning with zinc—art ceilings and architectural work—a cheaper substitute was found before long in steel, John Lysaght Ltd., of Bristol, supplying thin sheets of a highly malleable character. Nor was this all. For various uses other metals including copper were utilised, and from metals the founders were led on to the use of clays and other mineral substances for building purposes. Terra cotta roofing tiles and architectural terra cotta, and "Durabestos" or asbestos-cement building sheets are now produced in large quantities.

The head office of the company is at Baptist-street, Redfern, Sydney, where their original metal works are situated, but to-day they have branches in all the other Australian States, manufacturing branches for most part. Show cases and shop fronts form a big item on the metal side, but their manufacture of cement building sheets, roofing tiles and terra-cotta seems likely to overshadow their activities in metal.

The directors are pardonably proud of the fact that they have never had any serious trouble with their employees. They treat their helpers well in respect to pay and accommodation, and various "welfare" measures now obtain throughout the service. A staff partnership and profit-sharing scheme has also been introduced with the object of rewarding specially any and every deserving worker.

Electric Drills.

From the Goodell-Pratt Co., of Greenfield, Mass., U.S.A., we have received a copy of a catalogue devoted to electric drills. This is the first issue of the kind for such drills are really a new line with them. Some time ago they acquired the electric drill department of the A. F. Way Co. (Hartford, Conn.), and having perfected the original models of that firm are now producing a complete assortment of sizes with capacity varying from ⅛in. to ½in. The frames of all sizes are made of finely finished cast aluminium and every part is of the best material and workmanship. The motors used in these drills are of standard make, suited either for direct or alternating current. Specifications of each model are given in the catalogue with illustrations and performance charts so that with this pamphlet in his hands the merchant knows exactly what he is ordering.



Throughout Australia and New Zealand these manufacturers are represented by Mr. W. M. Greenbaum, of 40 King-street, Sydney.

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Hack Saw Blades

At a meeting of the Canadian Railway Club Mr. Robert Job, of the Milton Hersey Co. Ltd., opened a discussion on "The Inspection and Testing of Railway Materials." During his address he referred to the testing of hack saw blades, and the desirability of arriving at a standard method.

Mr. Prescott W. Robinson, Canadian representative of Clemson Bros., Inc., followed at the invitation of the chairman and is reported as follows in "Canadian Railway Club"—the official organ:—"There is not very much I am going to force on you, but Mr. Job has brought up the subject of testing hack saw blades, and it has been my privilege to be associated for the past few years with the gentleman who was responsible for the hack saw blade—Mr. George N. Clemson—who brought out the hack saw blade forty-three years ago and since then has devoted his life to making a better blade, and while he says, with a pardonable amount of pride, that he has the best blade on the market, he is still endeavouring, through long hours of constant research, and by the use of the most up-to-date scientific instruments that money can buy, to leave to the mechanical world a hack saw blade that will ever be recognised as a standard of excellence.

"Although seventy-three years old, Mr. Clemson is at the plant every day excepting Sundays and holidays, at seven o'clock; at seven-thirty the shop opens. He goes off at twelve and plays, but Mr. Clemson, as I believe I am correct in saying, has saved more actual money and time for the mechanical world than any living man. I would like to ask Mr. Job if he remembers the old Stubbs blade that must have been going out as he was coming in. It has been stated on a careful estimate, that metal sawing would cost to-day approximately one hundred dollars if done with the old Stubbs blade, as against a good careful treatment of one power blade. That may sound like a big statement, but I think that you gentlemen who have had some experience with a Stubbs blade will agree with me.

"We spend most of our time in endeavouring not to sell hack saw blades, but to keep hack saw blades sold. I do not believe that there is a tool that enters the machine shop that is given less attention, given less care, and has to do more, than the hack saw blade, particularly the hand blade. We have had some very interesting experiences. We had one only two weeks ago, when one of the biggest machine shops in the Dominion sent us a piston ring with a complaint that they had a blade that would cut through this ring four times, whereas our blade would only cut through once. I thought this was interesting, so I made a test with the ring to see what the trouble was. The ring was O.K. and I rigged up a vyce on the corner of my desk, got out my hack saw frame and tested out the sample blade of the other make that was sent to me which had given the satisfaction of making four cuts of that steel. I actually cut twenty pieces off that ring and the blade was in good condition. I then tried one of ours and I found that I could do the same thing and our blade was likewise in good condition. I then took another of our blades; in fact, the next blade in the package to the one I had previously used and, by using it as no man should use a hack saw blade, but as it is very frequently used, I succeeded in burning that hack saw blade up in one cut. Now, that is an actual fact and a record has gone back to the machine shop from which the complaint came and I am awaiting their reply.

"The foregoing is not an isolated case, and if you will visualise the using of a file at a bench and then the using of an ordinary hand blade by the average mechanic, if he were to use his file the way he uses his hack saw blade, he would be fired, and yet they are both doing the same work.

"The hack saw blade of to-day is being abused a lot more than it is actually being used, and Mr. Clemson made the statement to me within the last two months that in his opinion not over ten per cent. of the hack saw blades manufactured ever saw within fifty per cent. of their actual capacity, if they were properly used, and I would like to make a suggestion to Mr. Job to bear in mind in the report (and I know, if there are any other hack saw people in the room they will agree with me) that explicit instructions should be issued to the various shops that hack saw blades be classified into six groups, viz.:—

Chart of Speeds and Pressures.

Hand Blades—

On soft metals ..... Strokes per minute.

On hard metals ..... Strokes per minute.

Power Blades Dry Sawing—Soft Metals—

..... Strokes per minute ..... Pounds pressure

Dry Sawing—Hard Metals—

..... Strokes per minute ..... Pounds pressure

Wet Sawing—Soft Metals—

..... Strokes per minute ..... Pounds pressure

Wet Sawing—Hard Metals—

..... Strokes per minute ..... Pounds pressure

"If this were done, I do believe that the railroads and all other users of hack saw blades would get considerably more work out of their men, their materials, and their blades than they are getting to-day.

"We are ready and willing at all times to go to the end of the country to regulate a difficulty, but if, before the complaints are put in they will analyse the conditions, namely, the speed in hand sawing, and the speed and pressure, or lack of pressure, in power sawing, I am convinced they will find fully ninety per cent. of the trouble, and they will find five per cent. of the trouble in nonconformity of the structure of steel. A steel may be soft, but stringy and tough, in which case it would be much harder to cut than most hard steels. Again the variation in steel due to conditions of heat treatment or conditions of exposure in rolling are bound to affect conditions in cutting, and it is seldom that the material being cut is ever blamed for variations in the actual work of cutting and invariably the hack saw blade—'the orphan tool of the machine shop'—has to stand for the abuse that may be heaped upon it, which in most cases can be directly charged to either the human element or the physical conditions. A good mechanic watches very carefully to see that his lathe is run at the proper speed. He also makes sure that the proper weight is applied, but it is seldom that any thought as to driving speed, or weight employed, is ever given to a power hack saw machine.

"Let me stress in summing up that what actually counts is the number of strokes per cut and the number of cuts per hour. There is a manufacturer of power hack saw machines who says in his printed matter his machines can be driven 130 strokes to the minute. That is absolute suicide for any hack saw blade. He does not manufacture blades, but manufactures machines. We investigated the conditions in his own plant and found that they were actually driving at less than ninety revolutions to the minute."

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Building and Furnishing

Buyers' Notes for Retail Dealers

Sydney

Leopold Barnett & Co. Ltd., of 306-08 Pitt-street, Sydney, claim that they conform to the fashion changes in builders' and cabinet makers' requirements. Inlay panels and inlay bandings are shown in all latest colours and patterns. Office furniture forms a part of the firm's activities. Steel back and revolving chairs for typistes are made in various designs, as also are more massive office furniture.

Laminated ply woods with vertical inner plies for use in all flush door furniture are stocked in thicknesses ranging from ⅜in. to 1in. Full stocks are also carried of every variety of three and five-ply timbers, both Australian and imported. In furniture hardware antique copper finish on brass or on steel now rules. Worthy of special mention are two kinds of bed-irons, one being Australian and the other English made. The Australian is of dovetail type and the English is the "Aris," the sole Australian agency being held for the latter.

In builders' hardware there is a wide assortment of lock sets, casement stop and window fasteners, hinges and other similar lines. In bathroom fixtures, all of which are in modern finish, a special feature is made of the "Recesso" fixtures in white porcelain finish. There are also porcelain enamelled baths in best finish and painted and in all styles by Australian makers. The English "Carron" brand bath is also stocked. Basins of various designs and shapes and fitted with appropriate cocks and taps are worthy of note. Gas and electric heaters from different makers are in variety. Lines for the kitchen and laundry, both for fuel and gas, as well as two and three compartment "Eterno" concrete tubs are stocked by the firm.

Brandt Bros. Ltd., of 236 Pitt-street, Sydney, are now catering specially for the building trade. A line to which attention is directed is "Abo" pure zinc ready mixed paint, a local product made without lead. The firm have taken over the distribution in N.S.W.

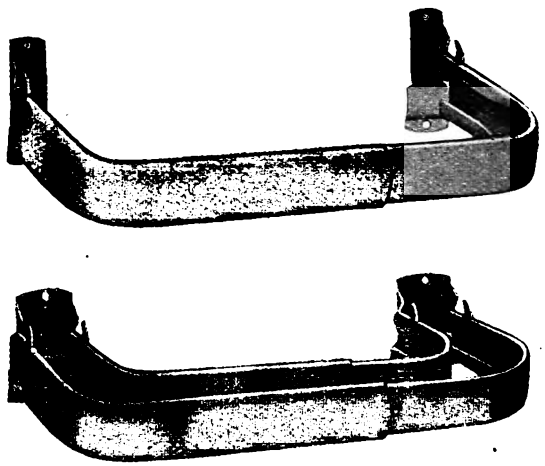
Hot water systems are a feature of the display. Amongst these the "Junker" is prominent. Made in sizes to suit small dwellings or large hotels, the system is worked automatically and is said to supply hot water instantly for bathrooms, kitchens and elsewhere. A pilot light is kept burning while the gas is on.

The firm manufacture any special design of lamp fittings or wrought iron lamp brackets for halls or stairways. They also undertake the manufacture of good quality sheet metal work.

Briscoe & Co. Ltd., of 383-85 Kent-street, Sydney, have included in this year's stocks a better class of builders' hardware and furnishings. The Stanley ball bearing butt hinges, it is claimed, are not only silent running, but give a life-time wear. They are supplied in heavy bronze or steel. Evered's brass pole brackets (No. 10,311) are noteworthy by reason of the fact that they have an extended arm and thus the curtain is brought further out from the window. The Corbin night latches (No. 356) are ball bearing, and a feature is that the key can easily be inserted in the dark, to be withdrawn just as easily, and does not jam in the lock. Not only so, but it is practically impossible to insert any other key or instrument except the right one, and thus the door cannot be forced. The "Snappy" door catch is made for use in wire gauze door frames, and holds the door fast in the event of the spring becoming weakened through constant use.

W. W. Campbell & Co., Ltd., of 249 Clarence-street, Sydney, have on hand a wide range of cabinet makers' hardware, and are adding regular shipments of other lines, including pliers, hack saw frames, turn screws, carpenters' pencils, and so on.

They have been appointed N.S.W. distributors of the "Perfect" curtain rod. This device is made in



the finest satin brass finish and has a patent clip bracket at the side, preventing the rod from being knocked off. Full stocks of single and double makes are carried, as well as centre sections for extensions. The articles have a superior appearance and are marked at a low price.

"The smooth ones" is the name applied by the makers to the American birch dowels, full stocks of the articles being carried, and it is claimed that they are of a uniform thickness. Supplies of English glues and shellac are stocked.

John Danks & Son Pty. Ltd., of 324-30 Pitt-street, Sydney, are making a speciality of "Security" vault and fire doors and safes. The safes are made in sizes ranging from 24 x 18 x 17 to 48 x 28 x 27 (outside measurement), and are fitted with one and two drawers. Strong room doors are to be had in all sizes. These safes are the product of a Sydney factory, and are strongly built with massive steel frames of double thickness back and front. The doors are constructed of higher grade steel, protected over locks and vital parts, fitted with special burglar proof six lever key locks, and the body and door are lined throughout with four inches of fireproofing asbestos compound. Special internal fittings are built in all safes if required.

The "Beatsall" patent spring seat is a device for attaching to the legs of chairs. Inside is a strong spring, which gives with the movements of the sitter, thus making an ordinary chair an easy chair for all practical purposes.

The Lowell clothes line reel is made in enamel, green or white painted. It is useful in flats or balconies, and the line can be wound into the reel when not in use.

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W. S. Friend & Co., of 113 York-street, Sydney, have recently introduced among other new lines the "Bush Shower," an attachment for use in country homes, week-end cottages and places where a regular water supply is not available. The apparatus may be attached to the bottom of a kerosene tin or similar vessel, the provision of leather washers making the operation very simple and occupying but a few minutes' time. A turn of the rose provides a shower of any degree of pressure required, and the flow of water can be stopped in a moment by turning the rose in the opposite direction. One of the advantages claimed for the apparatus is that both hands of the bather are left free once the flow of water has been started. The appliance is also useful in town homes where a hot water supply is not on hand.

A telescopic window stave is also shown by this firm, a special advantage of the contrivance being that the ends are telescoped so as to avoid projections within the room when the window is closed.

A feature of the "Superior" vacuum cleaner is that the turn of a screw enables the nozzle to be raised or lowered to the correct height for the most effective cleaning of carpets or smooth surfaces, thus rendering it unnecessary to use a different nozzle for the various kinds of work to be done.

Hill, Magill, Ltd., of 131-33 York-street, Sydney, are carrying large stocks of Malthoid roofing and floor covering. The use of this extra heavy material on floors deadens, it is claimed, the objectionable noise heard in halls, offices and hotels under the constant tramp of heavy foot traffic. Malthoid is soft and springy to walk on, and the edges weld themselves together under constant wear, thus making practically a one-piece floor covering, unbroken by dirt-collecting cracks and seams.

Both the "Metropolitan" and the "Jewell" are British made clothes wringers. The former is claimed to be of sound construction, capable of standing up to hard wear. The "Jewell" is a handy little machine, the rollers being made of pure rubber specially compounded to withstand the action of chemicals used in washing soaps and powders.

A full range of Nettlefold's iron and wood screws is carried. A special line is Vaughan's night latches, and in addition to these Miller, Yale, English, Australian and Continental makes are in stock, the last mentioned being marked at low prices. Hinges are in great variety, japanned and nickelled.

S. Hoffnung & Co. Ltd., of 163 Pitt-street, Sydney, carry big stocks of casement fasteners and casement combination sets of various makes.

Newly added to the lock sets is the "Rossda," and in addition the firm have Australian, English, American and Continental door sets. A complete range of cabinet handles affords a wide selection, stocks including those in A.C.B. and dull brass finish. Cabinet and chest locks in new patterns are noteworthy. Big stocks of grip neck, screw, socket, tray and mobile castors are on hand to meet the growing demand. Double and single door hinges are supplied in various finishes, and Nettlefold's screws in bright brass and japanned finish are available in all sizes. Various makes and sizes of pulleys are conspicuous, including lazy, screw and awning pulleys, both single and double. The sash fixtures include stocks of Belfast flax cord.

A complete range of carpenters' tools is displayed, including supplies from various British makers, as well as from Stanley and others. Sharkey (Swedish) chisels are prominent, and German planes are to hand in iron (smooth and block) and wood (smooth and jack). There are brass latches for light doors and cabinets, spring Bommer and Sargent hinges, and Scotch T hinges.

Holdsworth, Macpherson & Co., Ltd., of 252 George-street, Sydney, are showing a wide range of door sets, including crystal sets for front and bathroom doors. Some Gothic designs are also on view, as well as Gothic shams for church doors. A departure from the usual run of bolts is to be seen in some with square barrels, finished in brass. Combination casement stays are made in antique or iron and brass and in all sizes. Cylinder locks for club room lockers are supplied in sets of fifty each with a different key and one master key.

Clark's patent door checks and springs are suitable for doors that open in or out, and the "Bommer" double action spring hinges are on hand in all sizes and finishes. New patterns in door handles as well as new styles in hat and coat racks are shown in wide variety, and Preston's fan openers, finished in bronze, iron and brass, are made in sizes ranging from 12in. to 18in. New styles in mortice furniture are made in cocoa wood, brass, oxidised brass, and crystal. The firm also carry all makes of Australian, English, American and Continental night latches.

John Keep & Sons Ltd., of 104-08 Sussex-street, Sydney, are showing a wide range of Pabco enamel surface rugs and yard goods. These are in popular patterns, and the sizes range from 6 ft. x 9 ft. to 9 ft. x 15 ft.

Stocks of Malthoid floor covering are regularly carried. Screen door hinges and brackets are being shown. The "Beacon" door stop (No. 60) is supplied in colours to match the carpet. This little device is fixed to the floor and is intended to prevent the knob of the door from slamming against the wall and damaging it. A rubber attachment gives with the movement of the door. Single and double valance curtain rods are designed to take the place of the old style rods. They are made of metal and being telescopic may be shortened or lengthened as required to fit the different sized windows or doors.

Sliding doors for use in cabinets are claimed to be an improvement upon hinge doors, giving a neat appearance to the cabinet and being more convenient to operate. Socket sets for motor cars are in plain and ratchet designs, and are made in S.A.E. sizes to fit any car.

Ahrem's No. 1268 adjustable pistol grip extension hack saw frame is a handy little contrivance. By a simple movement the back can be adjusted to take any length of blade from 6 in. to 12 in., thus making the use of two backs unnecessary.

The "Dingo" bucket spray pump has a brass rod attached to the nozzle, a turn of the screw giving a wide shower or a straight, powerful jet as desired, and the jet may be directed upward or downward so as to reach the lower and top side of leaves.

Rogers' brushing lacquer is made in a wide variety of colours, and various shades may be produced by mixing different colours according to the directions supplied.

Malleys Ltd., of Mountain-street and 115 Pitt-street, Sydney, carry large stocks of the higher grade builders' hardware, as well as some of the lower-priced lines. "Durockware" is finding favour with architects and builders. The material is used for the manufacture of pedestal basins, wall basins, baths, urinal sets, syphonic suites and pedestal pans. It has a smooth, regular surface, and being a solid body, does not absorb foul matter. Heavy in construction and having a solid composition similar to fireclay, the ware is guaranteed by the manufacturers.

A new type of urinal stalls is shown. Attractive in design and strong in construction, it is fitted with an automatic 3in. syphon and has such ample flushing room that the whole of the contents, paper, cigarette boxes and so forth are flushed out.

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The sloping health closet pan is said to be coming into use on the recommendation of medical men, the body being brought into a natural position when the pan is being used.

A new design of sink heater gives a much larger volume of hot water than older makes. It is made with swivel action and is strongly constructed. The "Sunrise" bath heaters are on hand in various sizes, and hospital equipment receives special attention. A telescopic friction casement stay, free of screws or similar adjustments, permits the opening of the window to any desired degree.

Many other lines of interest to builders are shown by the firm.

Noyes Bros. (Sydney) Ltd., of 115 Clarence-street, Sydney, have many lines of interest to builders.

The "Loxin" is the name given to a machine shield used for making attachments to masonry. These shields are much easier to instal than iron lag screw shields. Another claim made by the makers is that they hold the machines tight to the floor and are not loosened by vibration, and also give better life to the drills.

The "Tampin" is another device for making attachments to brick or stone. It is claimed that these are easily and quickly installed in any position and give a sure grip, and they are also easy to remove. They are said to be specially useful for attaching electric light fixtures, bathroom fixtures, and for similar jobs where neatness is desired.

Alexander Smith & Keeler, of 12 Castlereagh-street, Sydney, have on hand a wide range of night latches, including Australian, English, and American makes. A feature of this year's display is the Panic door bolts, the use of which is compulsory in city theatres. The Richards-Wilcox "Slidette," for use in sliding and folding doors for houses and garages, are said to be coming into favour in this country. They are made in various degrees of strength, and No. 1035 is said to be most suitable for heavy doors or where hard service is required, such as that incidental to public garages. Heavy offset hinges are designed to take the place of hinges and brackets, and are also furnished in smaller sets. The English vestibule and corridor locks attract attention, and the firm also carry latches from Australian, American and Continental makers. One of the features claimed for Rawlplug liquid porcelain is that it dries quickly and will not rub off. Made in Sydney, the Moyes and Clayton bath shower is so constructed that the shower falls longways, thus preventing the floors from being splashed.

Swans Ltd., of 304 Pitt-street, Sydney, are the distributing agents for "Securex" fittings for light and heavy gauge copper tubes. The "Securex" system is claimed by the makers to be an improvement on the cone fitting which has been in use a number of years, and the advantages claimed are strength and neatness, no screwing or soldering being required. An improved cone arrangement



enables the joint to be made with the least possible pressure, and gives the necessary resistance required to prevent the shoulders of the coupling being drawn together.

"Dryvins" for making installations in bricks, masonry and similar matter are handled by the firm. In these expansion shields nails are used instead of bolts, thus eliminating laborious work with wrench or screwdriver.

A wide range of fittings required for sanitation, water and lighting installations is carried. Australian and English makes of galvanised iron are in strong supply, including the special "Swan" brand.

New designs in baths and basins are being shown, some of these being specially artistic and attractive. The "Swan" pedestal pan is worthy of note.

Melbourne

J. G. Black Pty. Ltd., of Somerset-place, Melbourne, have for many years handled building and furnishing materials. Whether for constructional work or interior fitting, the firm claim to have long experience of the market, devoting their attention to these goods in a special way. A showroom has been planned to display to the best advantage the various types of grates, stoves, baths and fittings, heaters, and similar furnishings. Both imported and Australian makes are represented. The range of tiled hearths and grates is well selected, and many fine colours and decorations are to be seen in this class of work.

Sanitary appliances and plumbing supplies are another feature of the warehouse, every need of the builder being catered for. Earthen pipes, galvanised and malleable pipes and fittings, cisterns of every pattern are all kept in complete ranges.

General hardware includes leading English and American locks and lock furniture, door checks and closers, Yale latches in the most required designs, brassfoundry of every description, and all the necessary mountings for screen doors and windows.

Blockey, Stone & Co. Pty. Ltd., of 268a Lonsdale-street, Melbourne, make a feature of several lines of interest to builders. Prominent in this section is a range of mouldings for panellings in interior work. Supplied in good lengths, this material comes in many attractive designs and various widths, representing the different "periods," the effect obtained by their use being that of fine carvings. Various three-ply panellings of good grade are also available in oak, blackwood, and other popular timbers. An imported wooden trellis is stocked, expanding from three to eight feet and of different meshes.

In the hardware department a selection of British and American barrel, tower, and pad bolts is shown, also several useful lines in Continental goods. English makes of double-handed rim locks are in all numbers, while an English knob lock with stamped steel case and brass furniture is of the conventional American pattern. Amongst the Yale goods is a dead locking night latch, an extra turn of the key sufficing to frustrate the efforts of the leadlight burglar.

A number of good Stanley products recently opened comprise butt and tee hinges, shelf brackets, loose pin hinges, and heavy corrugated tees. Many of these are also available in Swedish makes. Door closers are by Yale and Newman, while a full range of Yale sliding door latches is now obtainable from stock. One or two patterns in cupboard and French window catches are finished in oxidised brass or nickel, and should prove quick sellers, the prices being moderate. A line which is now almost universally used is the rotary type of door bell, these being American made. A large supply has been lately uncovered in numerous designs.

Other requisites noted were brass-cased tubing in all sizes, and screen door fittings, catches, hinges, and springs. Large stocks of the woven wire in bronze, galvanised and galvanoid have been added to stock for the coming season.

Briscoe & Co. Ltd., of 391 Little Collins-street, Melbourne, supply all heavy building materials, cement and iron, constructional steel, and reinforcings. In the general hardware lines full stocks are

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held of British and American locks and lock furniture, brassware, and interior goods of every description. Many Australian-made locks are also available especially mortice sets and the necessary furniture. A large selection is found of the various latches and door fastenings of Yale and Sargent patterns. Door checks in many good numbers are also stocked in these makes, as well as the well-known "Briton" types in several sizes.

Sanders' brassfoundry includes casement stays and fasteners, sash lifts, hat and coat hooks, and similar lines. Hartshorn's shade rollers are always on hand in all sizes. Fly wire and all fittings for doors and windows of this material are ready for the coming season.

As agents for the Wagner Co., of U.S.A., the firm are showing the special garage door fittings and ironwork supplied by this firm. They possess several features which have been approved by builders of this class of structure. Another speciality of Wagner's is the "Dix" noiseless door hanger, designed to provide a strong appliance which at the same time operates without undue noise.

Campbell, Walker & Co. Pty. Ltd., of 411-13 Lonsdale-street, Melbourne, have recently landed a shipment of excellent quality five-ply pannelling. This is a specially selected line of figured mahogany, in thickness of ⅜, ¼, and ½ in., which can be recommended. Another useful line is a series of wood carvings for the ornamentation of halls or mantels. Several designs are stocked, and the prices are reasonable. Ready-made carvings are now in demand for built-in furniture, which is being more and more used nowadays. In this connection there are also complete assortments of "period" cabinet handles—Sheraton, Adams, Mission, and similar styles all being represented.

This is the season for laying in stocks of fly wire and door fittings, and every requisite in this direction is now obtainable. All classes of woven wire are stocked together with hinges and catches. One showroom is devoted to interior brassware, which comprises many articles of English and Belgian make. A range of log boxes is specially attractive, in various sizes, suitable for briquettes or wood. Other fireside accessories are hearth brushes, pokers and tongs, either separately or in companion sets. Again there are fire screens, book racks, and book ends, all well made and finished. Quite a large range is displayed of brass candlesticks in "period" designs, and the selection of jardinieres is attractive. In this section also are a number of different patterns of bellows, finished in antique brass and copper, the embossed plates giving these wares a quite handsome appearance, and making an opportunity for a good display window. There are, too, some patterns of plaques and umbrella stands which are worth inspection.

As agents for the Campbell Tile Co. Ltd., of Stoke-on-Trent, the firm draw attention to their many tiled fireplaces, kerbs, floor and wall tiles. A handy and compact little catalogue is distributed by the makers, showing all their various patterns and schemes in actual colours. Many of the dados and hearths are in fine tonings and delicate designs, and the catalogue gives the necessary scales and other details to enable the builder or architect to order precisely the tiles he requires. In intricate patterns where curves are used the number of every tile is given to assist the tiler in his work.

John Danks & Son Pty. Ltd., of 391-403 Bourke-street, Melbourne, supply every need of the building and furnishing trade in hardware and materials. A showroom is entirely devoted to the display of baths, bathroom fittings, sinks, and inside furniture. The bathroom of to-day is well catered for, and in addition to the handsome porcelain or porcelain enamelled baths and basins, there are a hundred accessories obtainable to harmonise with the main features. Towel rails in white and nickel plated, sponge holders of the same type, mirrors and cabinets, brush holders and bath seats are all supplied of a class to ensure utility and cleanliness.

Many patterns of aluminium kitchen sinks and drainers combined are of one piece of metal, giving practically everlasting wear and serving to brighten the kitchen. Enamelled sinks are of both English and Australian make, while lavatory basins and fittings are made of the same materials. The selection of hearths and grates is very complete. Amongst the various types in use none is more in demand than the basket grate, which lends itself to a variety of shapes and gives a pleasing effect with its borders of brass or oxidised metal.

In builders' hardware every necessity is to be found here. The firm are makers of brassfoundry, and are able to supply all lines from their own factory. In window fittings perhaps the "Valo" twin curtain rod bracket is amongst the most useful. This class of bracket carries two rods, one for the curtain and another for the valance. It is constructed to hold each one firmly, and yet allows free adjustment without disarrangement. Every description of casement stay, sash fastener, and similar brassware is shown.

Amongst a number of similar appliances there are two or three reliable clothes line hoists. The "Simplex" and the "Safety" are good examples. They eliminate the old-fashioned prop, and are simply and neatly fitted to the post, enabling the user to lift the line well out of reach by the turning of a handle. When installed the whole business is settled once for all. The annoyance of striking one's face in the dark is obviated, and the raising of a heavy line full of wet clothes is rendered an easy matter.

A garage door hanger attracts attention. This is a product of the Stanley Works, and the strength and simplicity of the contrivance, together with its moderate cost, should appeal to builders.

Mention may also be made of the lock department, which carries a very complete and comprehensive array of all the English and American patterns in daily use. A number of good Australian locks are now obtainable. These are made to suit local conditions and demands, and are finding increasing favour with buyers.

Hawkes Bros. Pty. Ltd., of Geelong and Melbourne, advise the landing of a large range of Nettlefold's products, including all wood screws, and also nickel-plated and oxidized screws for various purposes.

The firm stock very complete assortments of well-known makes of mortice lock sets in all the various patterns and finishes, fresh supplies of rim locks and padlocks continually coming to hand. A feature of this department is the inclusion always of both English and American types of keys, both cut and blanks, to suit all locks.

Hinges are available in every pattern. In addition to the ordinary door patterns are many ornamental kinds. Special mention may be made of Stanley numbers, which have proved quite popular with builders. The makers are supplying ornamental lines either in large display box assortments, or packages of one dozen pairs. Display boxes prove themselves most useful in the retail store, by attracting the attention of buyers.

An important section is that devoted to builders' brassfoundry. The number and variety of wardrobe and cupboard catches, casement lifts and fasteners, and door catches is legion.

Bathroom fittings include some very fine accessories, such as basins, electrical furnishings, cupboards and other details which are now in such demand. Porcelain enamelled baths and sinks are of

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high quality and apearance and a fine selection is available.

For the summer season mention should be made of fly wire, either green or galvanised, also window screens of metal and wood, with all fly door fittings. All "Malthoid" products are regularly stocked.

Jinks & Morgan Pty. Ltd., of Levison-street, North Melbourne, manufacturers of builders' hardware, are offering a good range of oxidised brass and japanned stamped ware, and pressed steel lock sets in a number of designs. Brass lock sets are supplied in any finish, and cupboard locks are of bright pressed steel or copper-plated finish.

The firm's sash pulleys are also quite familiar to the Australian trade. These are strongly made of pressed steel, and are supplied with either round or square end face plates. In the lock sets several different designs are turned out—"Killara," "Croydon," and "Roseville." Rim locks are made double-handed, the cases being stove enamelled, while the furniture is of polished brass.

Amongst other products from this factory are shower heads and cistern floats, which have found the approval of the building and plumbing trades. Shower heads are of copper, and are supplied in 7 and 8 in. sizes. Small accessories in builders' hardware such as sash lifts, drawer pulls, and seat hinges, are other products which need no introduction to the trade.

All the foregoing wares are sold under the firm's trade mark—"Prestel"—and are supplied wholesale only.

J. S. Kidd & Co. Pty. Ltd., of 410-12 Lonsdale-street, Melbourne, advise a complete selection of small brassfoundry goods, which includes letter plates, brass butts, door knobs, cornice pole and curtain rod fittings, cabinet handles, and casement stays and parts. Double action spring hinges are in all sizes, and finished in either japanned, antique, or brass. Newman's double action springs, Smith's double action floor springs, and "Briton" door checks are amongst recent shipments.

The lock section comprises practically all the most used lines. Vaughan's and Carpenter & Tildsley's rim locks are stocked at all times, as also are drawback locks, and Sargent's, Corbin's, and Australian makes of mortice lock sets, in various qualities. The firm make a special point of the supply of keys for all classes of locks. Both keys and blanks are constantly on hand, and some twenty-five different manufacturers are represented in this section. In preparation for the coming summer season, a full stock of all catches and fittings for screen doors has been imported, together with the necessary fly wire.

Included in a large assortment of hinges are Scotch tees, bright steel and japanned tees, and strap hinges in bright, plain and corrugated patterns. A line which is at the present moment in demand is trestle joints; these are available in 8, 10, and 12 in. sizes. Brass cased tubing is here in all sizes, and nickel plated and oxidised tube in the sizes most in request. Shade rollers and all window fittings are also regularly stocked.

McPherson's Pty. Ltd., of 554-566 Collins-street, Melbourne, have an important department devoted to builders' hardware. Here are displayed every class of locks and fittings, together with all builders' brassfoundry, hinges of every description, door and furniture fittings.

At the moment special attention is being given to fly doors for houses and "sleep outs," these being supplied ready for fixing. The woven wire may also be had in rolls, and the necessary catches and spring hinges for the purpose.

Baths and sinks, lavatory requisites and accessories are in every make and size. Screens for baths are increasingly used, and many useful lines are now shown. A new screen, the "Bristol," is to be had for built-in baths, this being of glass with nickelled mountings as well as of white enamelled metal. In the same brand there is a movable corrugated screen which is made so as to fit closely to the bath, an additional feature being the readiness with which it may be cleaned. There are no corners or ledges where dirt can collect.

In the plumbing section mention should be made of a fine range of malleable pipe fittings, the B.S.I.G. brand. The firm are distributors of this line, which is confidently recommended for strength and quality of material. A feature which appeals to the man on the job is the accuracy of thread, the true centreing of all fittings and the bead which is embodied for extra strength.

Mr. J. Stratmann, of Brien-lane, off 146 Bourke-street, Melbourne, has for some time been making builders' hardware, his leading line being a reversible rabbeted mortice door lock. The principal feature of this lock is that the change from left to right may be made in a few moments, by the simple removal of the screws. The lock is most useful for certain classes of work, especially as the case is of brass throughout, the thickness being only $\frac{7}{16}$ in. An improvement has been adopted in the striking plate, which is now stamped in one piece, and of such a design as to save considerable time in morticing.

Wunderlich Ltd., of 243 Collins-street, Melbourne, are amongst the most important manufacturers of many kinds of building materials. Their principal products are constructional goods for ceilings, roofs and walls, such as tiles, asbestos-cement sheets, and metal ceilings.

A great demand is found for the company's "Durabestos" building sheets. Described as asbestos-cement materials, they offer a useful and handy method of building walls and ceilings, and in the shape of shingles are largely used for roofs. The composition is given as asbestos-fibre and Portland cement. During the manufacturing process the asbestos fibres are incorporated with the cement, the result being, when properly proportioned, an extremely durable substance, impervious to the elements, and resembling trowelled cement in density, smoothness, and finish. Sheets of a thickness of $\frac{7}{16}$ inch are usually employed as a lining for wood-frame structures, this work being its most frequent application. It is also useful in very many different ways, for both interior and exterior purposes. Experience has shown that these sheets are practically unaffected by the elements. Heat and cold are alike unable to impair their qualities. The stock sizes are $\frac{7}{16}$ and $\frac{5}{32}$ inches thick, 3 and 4 ft. wide, and from 4 to 10 ft. in length.

Other builders' lines are made, for various purposes. Amongst these may be mentioned hurricane skylights, for either slate, tile, or iron roofs. These are of several patterns—fixed or hinged, and ventilated or unventilated. Galvanised steel window hoods are of various sizes, while cowls, inlet and outlet vents, ventilated ridging, glazing bars, and similar appliances are catalogued by the firm.

Wunderlich metal ceilings and wall linings are very well known to the building trade. They offer a fireproof and durable type of material for the purpose which also has an attractive, not to say artistic, appearance.

For shading windows or porches from sun and rain there are three designs of metal window hoods. These are quickly fitted, and quite moderate in cost. Formed of galvanised steel, they are shipped in three parts, which are simply assembled by means of the small bolts and nuts provided, and for which the necessary holes are drilled. Hoods are made in stock lengths of 6 ft., but shorter or longer lengths can be made to order at an extra charge according to measurement ordered.

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Electrical Section

Notes from Melbourne

(By F.M.B. 22/211.)

During the last few months the supply mains of the State Electricity Commission have been extended to many outback places. People who once thought that electricity would only be theirs upon retirement to a town can now enjoy its many advantages. Some districts have a very high percentage of houses and farms (within reach of the mains) connected. This is particularly noticeable in parts of the Western District, where the farmers are quick to appreciate the advantages of an electric service. Improved lighting conditions both in the house and round the yard as well as power appliances can be enjoyed.

Others promoting the use of electricity are those who offer complete lighting and power plants for country homes. These are supplied to those who are right away from a power supply. Small plants are used by those requiring light only, and larger plants where power for light, driving machinery, or refrigerators are required. Business with these lighting plants has been really good, until just recently, when farmers became doubtful as to the season's results. However, things have been fair, and since the rain fell prospects have improved.

New tariffs brought in by various supply authorities, such as the State Electricity Commission, and City Council, are lower than previous rates, and should help towards increased electrical sales. The two-part tariff, used by the State Electricity Commission in many places, receives a good deal of criticism, but taken as a whole, it is certainly a good method of charging for current. Even if small consumers do not benefit directly from this method, they would certainly make a saving if they made their houses more electrical, by using irons, fans or other conveniences.

Despite the cold weather refrigerators are still being sold, mainly for cafes and other commercial purposes. All forms and sizes of these machines will be on view at the exhibition in September. This promises to be a very representative enterprise. Over sixty firms have taken space and the Melbourne City Council and Melbourne Electric Supply Co. Ltd. will operate with the State Electricity Commission to make the display a success. The Victorian Railways will show the chassis of an electric train, and the Postal Department will have a working exhibit of telegraph and telephone apparatus. The exhibition is claimed to be one of the biggest of the kind yet held in the Southern Hemisphere. From reports to date, it will certainly take a lot of beating.

Notes from New Zealand

(Specially Contributed.)

A report submitted to the recently formed North Canterbury Power Board by its consulting engineer (Mr. J. R. Templin) stated that a loan of about £160,000 would be needed to cover the work to be done in the board's district. The report was adopted.

A loan of £150,000 for the Auckland Power Board has been raised in Australia through the Bank of New Zealand. The loan is for 21 years at 5 per cent. with a sinking fund of 2½ per cent. The board nets £94 in Auckland. The total cost to the board including redemption is 5½ per cent.

The announcement made by the Minister of Public Works, early in July, that the department intends installing auxiliary generating plant to meet the anticipated shortage until Arapuni power becomes available, is very welcome to power supply authorities in the Auckland province.

Teviot Power Board's annual report shows a steady increase in revenue, from £2702 at the end of 1926 to £3246 for 1927. Of this latter amount £191 was received from motors. During the year a 500 kw. unit has been installed at the power house and is now carrying the load of the system.

The annual report of the Christchurch Municipal Electricity Department indicates steady progress in the electrical development of the city. From 7760 kw. the maximum load increased to 8078 kw., the number of consumers from 24,564 to 26,438, while the increase in the number of ranges and water heaters has been a marked feature.

Grey Power Board is inviting tenders for several classes of electrical material comprising house-service motors, triple braided cable, bare copper wire and street lamps. Consumers in the board's area now number 1042, and the connected load is:—Lighting, 380 kw.; power, 1300 h.p.; heating and irons, 410 kw.; water heaters, 10 kw.; ranges, 19 kw.

Bay of Plenty Power Board reports that the results of the load canvass up to May 31 were as follows:—Domestic installations booked, 88; milking plants, 81; amount guaranteed, £3254/10/-. The above included 22 ranges booked up and provision for wiring an additional 12. A total of 68 water-heaters was signed for. The figures represent a connected load of 389 kw.

Dannevirke Power Board has adopted the following charges for the installation of water heaters:—(1) Where the house is already wired, £4 plus plumbing charges; (2) where the house is not wired the water-heating appliance is to form part of the original installation, £2 plus plumbing charges. The board's annual report shows that the anticipated deficiency of £1490 on the past year's working has given place to a surplus of £4268.

Malvern Power Board reports that a pleasing feature revealed by the trading department's figures is the large kilowatt total of the radiators sold during the past two months. It is considered that further business in this direction would result if charges were lower, and a reduced scale of charges applying to radiators for churches and halls is under consideration. Regarding extension of supply, the Kimberley and the Courtenay lines will be livened up very shortly, construction being almost completed.

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Community lighting is finding favour among electric supply authorities, the towns of Ashburton, Eltham, New Plymouth, Nelson, Dannevirke, and Palmerston North being among the users of this system to date. New Plymouth already has 232 community lights in use. The popularity of the system appears to be due to consumers not having to pay any portion of the installation cost, and it has been noted that tenants having short leases of their premises readily take advantage of this consideration. The rates vary from £3/7/6 to £4/10/- per annum per lamp.

The Government is investigating the proposal to provide electric power for the North Auckland peninsula. It is considered that without the Whangarei borough, which is supplied by the Portland Cement Co.'s plant, there is not sufficient load to warrant extension of reticulation north of Henderson. Negotiations, however, are now proceeding with new works which may be established in the district, and if they should contract for a substantial amount of power, the extension of the main lines into the district will be favourably considered

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The following loans have been authorised for electrical purposes:—Te Awamutu Power Board, further portion of £25,000 authorised to be raised under the instalment system over a period of 36½ years, £6000.

Central Power Board (Hamilton) for electric works, £20,000.

Hutt Valley Power Board, further portion of £150,000 authorised on the instalment system over 36½ years, £60,000.

South Canterbury Power Board, for electric works, £36,000.

Wairarapa Power Board reports steady progress. The board's agreement with the Government provides that a certain minimum amount of current shall be taken for each of the five years dating from March 31, 1926, the figure for 1927 being 235 k.v.a. This figure, however, was exceeded by 102 k.v.a., a load of 337 k.v.a. being recorded under ordinary running conditions. The number of consumers last March was 2904, and at the same date in 1926 2538. The present revenue per consumer is about £10/14/-. The total connected load last March was 7740 kw. and the total expenditure to date £512,266.

Considerable public interest was evinced in the electric cooking demonstration and competition recently held by the Southland Power Board. Crowds four to six deep watched each competitor, and the result should be a great stimulus to public interest in electric cooking. The demonstration was held at Invercargill, and there were twenty sections (including seven juvenile) for home cooking, to be done on an electric range. A total of 156 entries were received. The judge commented very favourably on the standard set up, while the onlookers were obviously impressed with the high quality of the exhibits. It is intended to hold a similar function at Gore.

Ashburton Power Board reports that the house-wiring staff has been kept very busy lately and still has a good deal of work on hand. Work is being carried out at Westerfield, Acton, Mount Hutt, Eiffelton, and the extension toward Digby's Bridge. It was hoped to have most of these new consumers connected up during the next month or two.

During June, eleven ranges and six water-heaters had been installed and nine motors connected up, while twelve applications for current had been received. The Sherwood line has been extended towards Dromore, and an extension to Middlemiss made from the present Mitcham extension.

An indication of the popularity of electric power for milking machines is given by the Thames Valley Power Board, which estimates that at least 75 per cent. of the machines in the board's district have electric motor drive. The number driven by oil engines is decreasing each year.

Southland Power Board estimates that 80 per cent. of the dairy farmers to whom electric power is available are using electric motors.

Taranaki Power Board anticipated that 75 per cent. of the dairy farmers would instal motors for their milking machines, and although this estimate has not yet been realised, the board's consulting engineers maintain that it is reasonable and will yet be justified in the result.

Auckland Power Board gives the following comparative figures for 1926 and 1927:—

	1926.	1927.
Number of consumers.. ..	31,458	38,498
Number connected in year	9,252	7,040
Total capital expenditure ..	£1,956,687	£2,186,347
Total revenue..	£413,880	£518,549
Surplus for year	£44,082	£64,428

During the last twelve months, 1288 miles of overhead and 48 miles of underground cable were used, representing 590 tons of copper, and 419 route miles of line. In addition 5622 hardwood poles were erected and 152 transformers erected on the reticulation system. The increase in revenue is chiefly due to the rapid rise in the domestic load, which now represents about 30 per cent. of the total sales of current.

The following incident shows that it pays to boost the "electrical idea." Some time ago Mr. H. F. Truman, of the Truman Electrical Co., an English firm, gave an address on the advantages of the all-electric house, and detailed the many services which electricity could perform in the home. A report of the address was published in a Herataunga (N.Z.) newspaper with the result that the firm has received a letter from the secretary of the local golf club asking for quotations for the supply of electric cooking equipment suitable for providing for a hundred lunches and fifty dinners, and also for electric hot-water urns. The secretary remarks: "There are no English ranges on the market here, but any number of American ones. We would naturally prefer to buy from England if possible."

Otago Power Board reports that large power consumers throughout the district seem to be fully alive to the benefits accruing from electric power, the demand for which is encouraging. It is considered, however, that unless last year's revenue, about £13,200, is exceeded by 60 per cent. this year, the board will be compelled to strike a rate over the district.

A line from Milton to Lawrence and Beaumont is to be erected immediately, and it is expected that power will be available in Beaumont by the end of September.

The latest information concerning the Waipori dam is that the electric power and lighting committee of the Dunedin City Council is gathering additional data to enable it to present a report to the council as early as possible.

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HARDWARE AND MACHINERY

With which is incorporated

"THE AUSTRALASIAN IRONMONGER, ENGINEER AND METAL WORKER"

Established 1886.

OFFICES:

MELBOURNE—372 Flinders Lane (corner Queen Street). Tel. Central 449.
SYDNEY—Commonwealth Bank Chambers, Pitt Street. Tel. B 4779.
LONDON AGENCY—63 Ludgate Hill, E.C. 4.
NEW YORK AGENCY—T. B. Browne Ltd., Aeolian Hall, 33 West 42nd Street.
NEW ZEALAND REPRESENTATIVE—Mr. C. W. Carroll, 25 Panama Street, Wellington.

Subscription—10/- per annum.

For 30/- per Annum we will supply (in addition to above) The Ironmonger (London), weekly, and a copy of The Ironmonger Diary. All Post Free. Single copies 1/- each. Subscriptions payable in advance.

Advertisers will kindly note that all alterations to Advertisements should reach us by the 25th of the preceding month.

Factory Representative Visits Australia.

Mr. W. Ackermann, factory representative of Richd. Abr. Herder, of Solingen, Germany, has been visiting Australia to report on trade conditions and requirements. His firm have for some forty-five years manufactured a number of hardware lines, specially devoting their attention to plyers, spanners, and cutlery. They are large makers also of such goods as tinsmen's snips and gas plyers.

Although represented in Australia for a few years only, the firm have large connections in many other countries. In India, the Dutch East Indies, and the East generally their tools and cutlery are well known, fifteen travellers now working constantly in those territories. Business with India has been carried on for twenty years, while in the Dutch possessions on this side of the world their brands have been familiar for a longer term.

Richd. Abr. Herder was the name of the founder of the business, which is owned and controlled by members of the family, the principals giving their personal attention to the manufacturing and marketing of their wares. Only recently the works were much enlarged. Mr. Ackerman's mission is to study the needs of the Australian market. From Melbourne he went on to Sydney and Brisbane.

The Australian agents are W. R. Volum & Co. Pty. Ltd., of 294 Little Collins-street, Melbourne.

Too Much Advertising?

(By W.B.M., 65/212.)

One is sometimes tempted to wonder if people are not overwhelmed with advertising nowadays. We are surrounded by trade publicity. Our streets and highways are flanked with pictorial displays, trade marks and trade slogans. Trains, trams, 'buses, and ferry-boats seem to be advertising mediums no less than means of transportation. Newspapers and magazines, the "silver screen" and theatre programmes carry on the campaign of publicity.

Can even a fraction of it all make any lasting impression on minds intent on the interests and activities of our busy lives? Every mail brings to the business man's office its quota of circulars, catalogues and booklets, until it seems as if manufacturers and tradesmen would be just as well off if there was no advertising whatever and all were on the same footing.

Yet it must not be overlooked that widespread advertising is an essential accompaniment of quantity production. Those who are inclined to advocate a return to the old days of craftsmanship when a workman's output of an article or commodity depended largely upon his unaided skill overlook the fact that many of the services and utilities necessary to modern civilisation depend upon the manufacture of things in huge quantities.

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It is very largely due to widespread advertising that an adequate demand has been built up for these things. Take motor vehicles, domestic electric appliances, and radio sets as examples. Or course there is waste in advertising: nobody doubts that. Every bullet does not "find a billet." There is waste in war, and if the weight of bullets and shells expended for each man put out of action could be figured out, the result would indeed be staggering!

But advertising in commerce and projectiles in war are still the things that win campaigns!

The progressive business concerns allow for the wastage represented by the casual and unheeding glance, the advertisements which are seen at all by sections of the community, the gaping waste-paper basket and the hastily tossed aside page. This is all part of the campaign and they carry on persistently. Their courage and optimism is justified, for when the "smoke clears away' it is found that a substantial increase in business has resulted.

Foreign Exchanges.

Foreign rates of exchange in London for cable transfer on the centres and dates indicated, compare as follows:—

Par.	—	—	Aug. 22	Aug. 25	Aug. 29	Sep. 1
4.886	New York	Dols. to £	4.86 1/16	4.86 5/32	4.86 1/32	4.86 1/16
4.866	Montreal ..	Dols. to £	4.86 1/16	4.86 1/16	4.85 15/16	4.85 15/16
25.225	Paris	Frcs. to £	124.00	124.00	124.00	124.00
35.000	Brussels ..	Bels. to £	34.93	34.93	34.92	34.92
25.225	Rome	Lire to £	89.25	89.25	89.55	89.30
12.107	Amsterdam	Florin to £	12.13 1/2	12.13 1/2	12.13 3/8	12.13 7/8
12.107	Batavia ..	Gul. to £	12.13 1/2	12.13 1/2	12.13 1/2	12.14
18.159	Stockholm	Kron. to £	18.11	18.11	18.11	18.11
18.159	Oslo	Kron. to £	18.67	18.70	18.71	18.58
18.159	Copenhagen	Kron. to £	18.15	18.15	18.16	18.16
20.43	Berlin.. ..	Gmks. to £	20.42	20.42	20.43	20.43
24	Calcutta ..	Pen. to rup.	17 7/8	17 7/8	17 7/8	17 15/16
24.58	Yokohama	Pen. to yen.	23 7/16	23 7/16	23 1/16	23 1/16
*	Hongkong	Pen to dol.	23 3/8	23 1/4	23 3/4	23 3/4

* Par depends on rise and fall in price of Silver.

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A Certain Seller

CALCIMO

THE ORIGINAL COLD WATER KALSOMINE

Wholesale Distributors for Victoria:

BROOKS, ROBINSON & Co. Ltd.

59-65 Elizabeth Street, Melbourne

Editorial

Showing the Stock

"Four-fifths of all retail store sales are eye sales." This statement is made by Mr. L. S. Soule, the editor of "Hardware Age," a well-known American trade paper. Its meaning seems plain enough. For one person who asks for an article he (or she), has not seen or does not see in or about the shop, four persons ask for articles which they have seen or do see, and but for seeing them would not have asked. That is the evidence covering his own particular territory of a competent witness.

We are not going to say that in Australia and New Zealand "eyesales" form so large a part of the whole, but we believe they constitute a larger part than most ironmongers are inclined to think. Hardware shops are entered by men to larger extent than those of grocers or drapers, and men like to know beforehand whether the thing they want is there and what it is going to cost them. The sight of a thing, moreover, may help men as well as women to realise a want or desirability which they had not thought of before. That often occurs with most of us. Until I saw a card of pencil sharpeners exhibited by a stationer, I had been pointing my pencils with a pocket knife, and making a longer and clumsier job of it.

In so far as it is true that the greatest incentive to buying is the actual seeing of the goods, the ironmonger ought to make the best possible use of his window space. His window should always contain specimens of his stock set out as tastefully as possible without over-crowding. New or unusual articles, especially, should be brought to the notice of those who pass his shop, every item being marked in plain figures. The purchasing public may be assumed to know that the ironmonger carries wire nails or butt hinges, but they cannot be assumed to know that he has received something new in tools or an improved type of scrubbing brush. He must inform them, and this can be done through the shop window. The trim ought to be changed with reasonable frequency so as to avoid staleness and to incite the public to "take notice." A well kept window is a great source of attraction.

The window, however, can only display specimens of the stock a few at a time. In the shop itself a larger showing should be made so that, attracted by something he has seen in the window, the person who enters the shop may be confronted with an ampler selection of goods, some of which he may not have known were there. Much of the ironmonger's stock such as cutlery lends itself to effective display, and counter cases of all forms and sizes can now be obtained—glass cases through which the goods may be viewed without suffering the least injury. The shelves, again, should tell at a glance by the open exhibition of specimens what they really contain. Time was when the ironmonger wrapped up and hid away his goods as it were. At any rate, the person who entered his shop saw little else than brown paper and closed cases. Few needs were ever suggested to him by the appearance of the place. He asked for what he came there in search of, and the ironmonger if he had it dug it out of some closed drawer or dark corner. But that time is past. To-day the ironmonger must show his goods, must study to make his shop suggestive. If he does not people will pass him by. For others are doing this very thing. If he doubts it let him visit one of the departmental stores.

The Cash Order System

Prudent men throughout Australia are concerned at the growth of what is called the cash order system. It flourishes in the large cities, a number of companies catering for this form of trade. We speak of them as companies throughout this article for the sake of clearness although as a matter of fact most of them are private firms. In Victoria some years ago, an attempt was made to pass repressive legislation, and a bill has again been drafted by a private member who hopes to secure the support of the Government in putting the thing down so far as Victoria is concerned.

The system has a great vogue among certain classes. It appeals to the needy or improvident. The customer unable to pay cash for certain articles, and unwilling to wait till the cash is in hand, goes to the cash order company and secures an order for a sufficient and definite amount upon some merchant or professional firm—teeth may be drawn on this system. Only through regular dealers can goods be obtained, for the company carry no stocks. They deal in orders solely. It is only certain dealers, moreover, that the cash order customer need approach, dealers with whom the company have made arrangements to honour their drafts. The choice is not as wide as the market. From the firm specified the customer obtains the coveted article or service, whatever it may be, and the cash order company pay the firm in due course.

So much for the mode of operation. And now for the reward of the intermediary company. Part of that reward comes from the customer, and part, in the case of merchandise, from the dealer. The customer pays in interest or commission, and the dealer in discount. A customer, let us say, obtains an order for £5 from the company. He (it is usually

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she), has to pay 5/- (or 1/- in the £1) on application by way of covering charge, and another 5/- as the first instalment of the loan. After that a weekly payment of 5/- has to be made for nineteen weeks, when the account is closed. From the customer the company receive £5/5/-, and to the dealer (who supplies the goods at lowest cash price), they pay not £5, but £5 less 10 per cent discount, or as much more as they can get. On the evidence of the companies themselves it is 10 to 15 per cent. in ordinary, while dentists allow them from 20 to 40 per cent. off regular charges. Taking even the lowest of these rates, the 10 per cent. discount, and adding to the 5 per cent. received from the customer, the normal transaction on a re-investment basis represents a return of 44.6 per cent. per annum to the cash order company. That at the least—on the basis of the company standing out of all but some 10 per cent. of their money for the whole nineteen weeks. As, however, the debt is being reduced from week to week the return represents considerably more than 44 per cent.

The growth of this circuitous form of business is surprising. As was to be expected, most of its patrons are women, and not always working women either. One woman with an income of £700 a year said she had used the system for ten years. She regarded it as a boon to the working classes as well as to people like herself who had invested in properties, and sometimes needed "ready money." More surprising still is the acquiescence of many business firms in a system of such questionable character. They are prepared to carry these outsiders on their backs and to charge Mrs. Brown, who pays, full prices, and give 10 per cent. discount to Mrs. White who brings an "order" from the interlopers. Other firms are not so accommodating. They reject overtures of the cash order companies, and in some cases have introduced "lay-by" systems of their own. Where, that is to say, a customer fancies an article for which she cannot pay immediately, they accept a deposit and put the goods aside until the rest of the money is paid. Some cash dealers go even further in obliging regular customers. Before the Interstate Commission in 1918, one of these firms stigmatised the cash order system as a parasite on legitimate trade, and with this description of the thing, few disinterested people will quarrel. Some years ago the Victorian and other Parliaments put an end to the company coupon system, which like this later development, came between buyer and seller, and levied its tax on both. It is a good example.

We have not heard of ironmongers lending themselves to this cash order form of business. It is chiefly the retailers of softgoods to whom the orders are taken, and while some drapers express themselves satisfied with the system, many are becoming restive, and certain firms have abandoned it after a sufficient trial. They found that if they were to give away 15, or even 10 per cent., on a growing portion of their trade they would have to increase prices to their other customers. In face of all the facts, ironmongers, we feel, are not likely to have anything to do with a system so questionable, no matter how speciously it may be presented.

Unionism in America.

A newspaper man who toured the United States with the Australian Industrial Mission obtained the following statement from Victor Orlander, an official of the American Federation of Labour:—

"Unionism in America stands for efficiency in production. It encourages the worker to gain skill. It approves of the introduction of new tools, including automatic machines, and does not believe that these create unemployment. It stands for the highest standard of living for the worker, and believes that America can have a high standard of living with low costs of production.

"It approves of piece work in new manufacture, when it is operated on the principle of collective bargaining, but opposes it in repair work. It claims and is prepared to prove that workers who are organised in trade unions are giving every day better work and greater efficiency than are the unorganised workers. Organised Labour in America claims that by recognising unionism and working with the union, an employer can increase his output and decrease his cost of production."

Cargo Pillage.

The extent to which goods in transit to and from Australia are interfered with by thievish fingers is truly amazing. It appears, indeed, that Australia holds an unenviable pre-eminence in this regard. Taken together, her ports disclose more pillage than do those of the Far East—Kobe and Yokohama, Singapore, Shanghai, and Hongkong.

In some instances the evidence suggests that the evil work has been done either at the port of departure or on the passage to Australia. At different times we have published photographs showing the clever manner in which cases of tools and other "hardware" have been rifled, stones or brickbats being substituted for the goods stolen, and the case neatly nailed up again. Neither to eye nor hand does the package suggest interference. And in some of these instances at least the material used as make-weight was seemingly not of Australian origin. The robbery had been committed elsewhere.

But much of this nefarious work is done in hastier and clumsier fashion, and the assumption is that it takes place on Australian wharves, which to great extent are open to the public. Not only so, but taken as a whole the evidence points to co-operation and organisation. It is not, or not always, the work of thievish individuals, but rather of gangs of men who combine to steal the property of others, property which it may be their duty to handle. Since 1921 a special police patrol, subsidised by the importers, has been employed on the Melbourne wharves with very beneficial results. During the first year of its employment the claims in respect of such losses dropped considerably, and last year they only amounted to 1½d. per ton of the cargo handled, whereas at certain other ports they run up to as much as 1/3. The Melbourne wharf police consists of a special body of plain-clothes men, whose sole duty it is to keep order and prevent pilfering. The cost is borne by the Melbourne Harbour Trust, the Victorian Police Department, the Overseas Shipping Representatives' Association, and the interstate shipping companies, and every vessel in port is watched. A strong Customs wall which has been erected around the overseas wharves has also made it difficult for stolen goods to be taken from the wharves.

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Inquiry Column

TRADE INQUIRIES

During the month we have supplied answers to the inquiries indicated below. Firms with whom we have not already communicated who hold any agency connection with the firms, or handle any of the lines mentioned in this section, are invited to furnish us with particulars so that our lists may be complete.

Information Wanted.

Henry Richard Tile Co.—Name and address of agent wanted.

Whitley Invalid Tables.—Name and address of agents wanted.

Collier & Co. (hack saws).—Name and address of agent wanted.

British Tabulating Machine Co.—Name and address of agent wanted.

Sperryn & Co. Ltd., Bristol (brassfounders).—Name and address of agent wanted.

Joseph Carver Ltd., Walsall (whips and bridles).—Name and address of agent wanted.

Henry Squire & Sons Ltd., Wolverhampton (locks).—Name and address of agent wanted.

Information Supplied.

"Reliance" Stove.—Name and address of makers supplied.

Felton & Guilleaume, Germany.—Name and address of agents supplied.

J. P. Danielson Co., New York, U.S.A.—Name and address of agent supplied.

"Rossda" Mortice Lock Sets.—Name and address of manufacturers supplied.

Lehmann, Archer & Co. Ltd., London.—Name and address of agent supplied.

Henry Boker, Remschied, Germany.—Name and address of agents supplied.

German Fencing Wire.—Name and address of agent in Melbourne supplied.

Septimus Vaughan Ltd., West Bromwich.—Name and address of agent supplied.

Southern & Richardson, Sheffield (cutlery).—Name and address of agent supplied.

"Lux" Stove (formerly called "Austral").—Name and address of manufacturers supplied.

Brokers for Produce and Grain.—Names and addresses in Melbourne and Sydney supplied.

Second-hand Machinery Merchants.—Names and addresses in Melbourne and Sydney supplied.

Copper Balls in halves for ball taps.—Name and address of manufacturers in Sydney supplied.

Derwent Foundry Co. (1920) Ltd., Derby, England.—Name and address of agents supplied.

Foster, Merrian & Co., Meriden, Conn., U.S.A. (castors, etc.).—Name and address of agents supplied.

Japanese Duck and Canvas.—Names and addresses of agents and importers in Melbourne and Sydney supplied.

Henry Cheney Hammer Corporation, Little Falls, N.Y., U.S.A.—Name of travelling representative supplied.

Harrison Bros. & Howson, Sheffield, England (silverware and cutlery).—Name and address of Victorian agent supplied.

"Veeder" Counting Machine, made by the Veeder Manufacturing Co., Hartford, Conn., U.S.A.—Name and address of agents supplied.

LEGAL INQUIRIES

Both in Melbourne and Sydney we have made arrangements with lawyers of good standing in their profession to answer through this journal any legal queries addressed to us. Readers who meet with difficulties are requested to state these as clearl as possible.

Goods Not According to Order.

A Melbourne subscriber (7/163) raises the following question:—If a foreign manufacturer executes an order in such a way that the goods cannot serve the purpose intended owing to certain parts being cut too short and certain holes too big, has the importer any legal claim on the manufacturers for the loss of profit through being unable to fill his contract with such goods, or is the return of the goods the utmost redress he can obtain?

A.—He can reject the goods and also sue for damages for breach of contract. The measure of damages would depend on the circumstances.

Orders Given to Travellers. Are they Binding?

If a traveller takes an order for goods from a dealer, when does this become a "completed agreement" for the sale and purchase? If the merchant or manufacturer has instructed his traveller to mention certain conditions of sale (and also prints these conditions on the invoice, demanding the return of the goods if the conditions are not accepted), and the traveller omits to mention these conditions when he takes the order, is the owner compelled to waive the conditions and supply the goods?

A.—Where the value of the goods is over £10 there must be a contract in writing signed by the party to be charged on part performance before there is a complete contract. Where the value is under that amount a verbal contract is sufficient. If the traveller does not comply with his instructions he cannot bind his principal.

A Partnership Case.

A father and son are joint owners of a shop and dwelling, both names appearing on the certificate of title. So long as the father lives, he receives half the income from the property, and when he dies it is found that he has left his rights in it to his wife who survives him. But the son believes that as the surviving partner, the father's interest reverts to him. The mother wishes it to be so and is prepared to make a will in the son's favour, but this would mean seemingly the payment of double probate duty. What is the legal position?

A.—It is difficult to advise on the question on the facts submitted. If the land in question forms part of the partnership property, then on the death of the father his share of the partnership property including the land will devolve to the person beneficially entitled to it, in this case the widow under his will. Assuming that the land is not part of the partnership property, its devolution will depend on the question whether the father and son were registered as owners of the land, as joint tenants, or as tenants in common. If they were joint tenants the whole of the land would devolve on the son: if they were tenants in common the share of the father would pass to the person entitled by the will, i.e. his widow. The legal position consequently depends on the details of the partnership and the nature of the tenure of the land, and on this we had no definite information.

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Sundry Credits

By J. Knibb.

Bath-Heater. Fatalities.

Every now and then we read of some person being overcome with deadly fumes while using a gas bath-heater. The death-dealing agent in such cases is carbon monoxide gas, a highly poisonous substance without taste or smell. Therein lies its special danger. The person using the bath is not aware of its presence until it may be too late. Adequate ventilation is the only real safeguard, and whatever the outlet from the heater may be, people taking a gas-heated bath would be well advised to leave the window well open and a chink of the door also.

* * * *

A Heart of Gold.

Recently I referred in this column to certain "metallic members" of the human body with which literature has familiarised us—the iron jaw, the brazen face, the steel hand, and the leaden foot. I return to the subject because I find I had overlooked something superior to all those—the heart of gold. The image seen in vision by a certain Hebrew prophet had feet of clay, you will remember. It was a clayey trick that memory played me. Fancy forgetting the best of them all—the heart of gold! For best it surely is. Call a man brazen-faced or leaden-footed and he will resent it. Say he has an iron jaw or a steel hand and he will receive your tribute doubtfully. But tell him that he has a heart of gold and he will purr with satisfaction. If he really deserves your encomium it means that he is of highest quality—genuine metal, kind and considerate, safe and sound, true and tried, all that and more.

* * * *

Why the Explosion?

A boy in Queensland, so the newspapers report, found a plug of gelignite on the beach and believing it to be a giant cracker, applied a lighted match to his find. An explosion followed and the poor boy was shockingly hurt. Gelignite is one of the most powerful of what are called "high" explosives, or nitro-cellulose compounds, its composition being given as nitro-glycerine 60 per cent., nitro-cotton 4 per cent., potassium nitrate 27 per cent., and wood pulp 9 per cent. The wood pulp is added for combustion. In ordinary, fire cannot and does not "set off" these rending substances. They are exploded by concussion. Had the boy thrown the thing down on a hard surface the accident would be accounted for more readily. As it is the fact that the stick was found on the beach probably furnishes the explanation. It was water damaged presumably, and such explosives when the nitro-glycerine exudes from them become a menace.

* * * *

Saving or Using?

In New Zealand, I notice, they still speak of "daylight saving." Another attempt is to be made in the present session of Parliament to pass "The Daylight Saving Bill." The title is unhappy to say the least. Every member of Parliament and every citizen must know that we cannot "save" daylight as we save money or collect postage stamps. All we can do is to utilise the daylight that comes to us as a gift, or bring our hours of work into better relation with the hours of sunshine. In Great Britain where there is greater need of interference with the clock the legislation passed some years ago takes the name, if I am not mistaken, of "The Summer Time Act." When a boy in the north of Scotland I worked out of doors, the full day of ten hours being from six a.m. to six p.m. with two hours off for meals. In summer there was time to spare at each end, whereas in winter a full day's work was quite impossible. You couldn't see.

* * * *

Noteworthy.

My womenfolk recently put in my hands something which excited my curiosity. A slip of paper from a packet of soap carrying an intimation that if the name and address of any friend in England, Scotland or Ireland were sent to the makers of the soap, a sample packet of this Australian product would be placed in the hands of such friend free of charge. "A catch somewhere," I said to myself. "How can Australian firms with their heavier costs of production compete in the British market? It must be one of those manufacturing arrangements whereby an article of the same name and nature is turned out in different places." But inquiry goes to prove that it is not so. There's no catch. An Australian manufacturing firm are actually sending soap across the sea not in pounds but in tons and are finding customers for it in countries which were using soap when the people of Australia were running about unwashed—long before Cook or Tasman came this way to teach us better manners.

* * * *

How About Metals?

But if in soap why not in other things?—that's what I have been asking myself. We have the tallow for the making of soap, you say. The raw material is here. Quite true, but so is iron and copper and lead and spelter, the raw material of a hundred industries. They are all found in this country, are all being mined at the present moment. Yet in which of them can we make articles to sell outside Australia? Steel rails or copper wire or lead pipes or zinc sheeting? And if not why not? Some small articles of metal there may be which we can and do make for export to other places. But I cannot think they run to much. Yet here is a firm selling their soap in Great Britain and Ireland. They spend some money in advertising, they admit, but they rely chiefly on the quality of their goods. Theirs is a really good soap. Australian housewives say so, and some of them send the names of friends in the Old Country to the manufacturers in token of their appreciation. However it is I think the firm concerned are to be commended for their enterprise.

* * * *

Austral English.

Sound doctrine may be the more important but sound speech is very desirable. Mr. Alexander Watson, who certainly helps people to realise the beauty and wealth of the English language, says our "Australian twang" is of Cockney origin. Very likely. Beneath my window every week I hear a boy shouting "Tible Talk" with an "i" that couldn't be longer or 'igher in the streets of London. Lond'n, we say, you notice, and Bright'n, without being challenged by the "best judges." The "American nasal stress" Mr. Watson traces to the Pilgrim Fathers, "who came from the western counties of England where many dialects have a distinct nasal intonation." It may be so. This witness knows more about it than I, and Myles Standish, himself a Lancashire man, is no longer with us to give evidence. (The most out-standing man in that pilgrim company of the "Mayflower," he died in 1656). Mr. Watson looks forward to a time when voice culture will be as much a part of the school curriculum as is arithmetic to-day. Until that time comes, we must be prepared, I suppose, to put up with fauty vowels and dropped consonants and other verbal abominations.

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Novelties and New Samples

Swedish Blind Rollers.

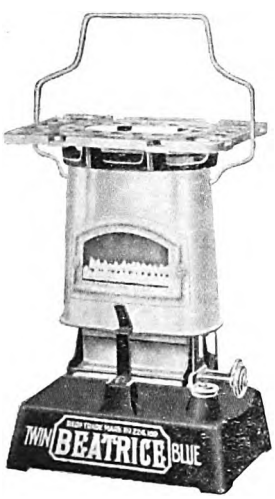
Nelson & Co. Ltd., of Broughton House, 47 King-street, Sydney, have been appointed sole Australian representatives for the Premier Self-acting Spring Blind Roller Works, Sweden, on whose behalf they are showing samples of plain and grooved rollers. The plain type is supplied in all regular diameters and lengths, and furnished with two lines for fixing with tacks only. The grooved variety is constructed in the smallest diameter of one inch, as well as in regular lengths, and is fixed with clips so that no tacking is required.

Safety Razor Blades.

Joseph Rodgers & Sons, of Sheffield, have placed on the market a line of safety razor blades suitable for both patterns of holder in common use. Sold under the well-known "Star and Cross" brand, the Victorian representatives, Noyes Bros. (Melb.) Pty. Ltd., report that the blades have been well received throughout the trade, and are giving every satisfaction. This is only to be expected, as the Sheffield firms have been making razors for over a century.

Improved Oil Stove.

John Harper & Co. Ltd., of Albion Works, Willenhall, England, have designed a new pattern "Beatrice" oil stove, known as the "Twin Blue." This is a single stove with a double wick stove capacity. The effect of this method of construction is to give twice the heat with considerable economy in fuel, time, and labour. The build of the new twin "Beatrice" is strong and practical. The cast iron container is firm and weighty so that there is no liability to overturn. The tank capacity is 2½ pints, and the double wicks are 4⅛ in. The makers speak with confidence of the efficiency and hard-wearing qualities of the stove, which they guarantee. Spare parts are available for replacement.



The illustration gives a good idea of the new line, which is now to be seen in the showrooms of the Australian and New Zealand representatives, Frederick R. Baker Pty. Ltd., of Melbourne, Sydney, and Auckland (N.Z.).

A New Safe.

A new safe, possessing several features of construction designed to make it secure against both burglar and fire is now offered by a Melbourne firm, the Victoria Safe Co., of 310 Victoria-street, East Brunswick. Known as the "Victoria Improved," this safe has heavy body plates, of a thickness of ⅜ in. steel, bent cold and welded where joined. The aim is to make the finished body one complete piece of metal.

In the case of the door and locking mechanism, against which attacks are usually directed, the makers have concentrated upon rendering them impervious to high explosives, as well as to drills and other methods of mechanical force. To combat the action of gelignite, special devices ensure that on turning the key the door handle automatically becomes disengaged from the sliding bolts, and the handle can only be re-engaged by reversing the operation of the key in the lock. In this way any damage to the lock makes the contents of the safe more secure. Additional protection is provided by a patent safety device which automatically relocks the door on the destruction of the lock.

The lock is a solid block lock, having eight levers, and controlled by a double-bitted key, which cannot be copied from a wax impression, and cannot be duplicated from the original without great difficulty. The new pattern of safe is supplied in eight different sizes, and strong room doors of the same improved type are also made.

Vacuum Clothes Washer.

Brandt Bros. Ltd., of 236 Pitt-street, Sydney, are the N.S.W. distributors of the "Swiftsure" vacuum clothes washer. Made of copper and bell-shaped, this device is said to remove the drudgery from washing. No rubbing is required, and as the parts to come in contact with the clothes are smooth, there is no tearing or wearing out of the most delicate fabrics. A tub of clothes that would take an hour to wash in the ordinary way may be cleaned in a few minutes by the use of the apparatus, and the rinsing and blueing can be done in half an hour. The washer may be attached to an ordinary broom handle and used in a wash tub, or even a kerosene tin. It is operated on the ball bearing and vacuum principle, the water being sucked through the clothes as the device is moved up and down. Boiling of the clothes after washing is not necessary. The retail price is £1/15/-.

Portable Dishwasher.

The "Darlo" dishwasher is an American invention designed to overcome the necessity of putting the hands in the hot water. Each outfit comprises—(1) A soap mixer with rubber adaptors for attaching to the faucet, (2) a short hose with a spray nozzle, (3) a wire basket to hold and drain the dishes and cutlery, and (4) a spray brush for pots and pans. With the dishes properly arranged and hot and cold water on tap, it becomes a matter largely of "pressing the buttons" and leaving the cleansed dishes to drain and dry. Each outfit is packed complete in a strong corrugated paper carton.

The overseas distributors are the Guiterman Co. Inc., of 35 South William-street, New York City, who are represented in Australasia by R. V. Bristol & Co. Pty. Ltd., of Melbourne, Sydney, and Wellington (N.Z.).

Hunting Knives.

Nelson & Co. Ltd., Broughton House, 47 King-street, Sydney, have received a fresh supply of highly decorated staghorn handled hunting knives. Made of the finest Swedish steel, these knives are well finished with polished brass guard. Aluminium hilts with vari-coloured lines enhance the decorative side. A leather shield is supplied with each knife and both are designed to withstand extra rough usage.

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New Food Safe.

"Yampa" is the registered name of a cool safe designed on somewhat novel but efficient lines, and is intended for use where ice is unobtainable. The safe proper, as well as the tanks at top and bottom, are made of galvanised metal, with an adjustable shelf, and as seen in the illustration, the whole is supported in a strong iron frame. An absorbent woven material which is particularly strong, covers the whole of the safe, affording a wide double door opening, each side of which is fitted with a metal frame to ensure close fitting, and to likewise keep it in position. After the first saturation of the new material a tap provided in the centre of the upper tank can be regulated to allow a slow drip upon the cloth, keeping it at the required dampness.



While perfectly ventilated, the safe is entirely fly and ant proof, and the constant evaporation dispersing odours from all foods allows either hot or cold dishes to be placed in it without fear of contamination. In the colder season the "Yampa" can be used as an ordinary safe without water, or can be easily taken down and stored if required.

MacAdam and Skenner, of Roma House, 543 George-street, Sydney, are the sole distributors for Australia.

"Good Line" Tool Sets.

Colin Maxwell & Co. are now firmly established in their new premises at 379-81 Kent-street, Sydney. From Ewald Ahrem & Son, of Elberfeld, Germany, word comes that shipments of a new line in the form of tool sets will be available in Sydney about the end of September. Although called tool sets and coming in strong cardboard boxes, these should not be confused with common toy sets as each tool comprising the set will find ready use by tradesmen as well as householders. They are listed No. 1 and include handsaw, combination plier, adze-eye carpenter's hammer, block plane, brass plated square, turnscrew, pencil and brace and three assorted bits. From the same factory is a new pattern insulated plier, No. 209. This differs from the old No. 209 in that the insulation is raised at the circular joint, creating a non slip device. The knurling of the handle is still retained.

Continental Goods.

From the works of Anciens Establissments Pieper S/A (Bayard Arms Co.) and the Liege United Arms Co., Walter A. Cox Ltd., of 195 Clarence-street, Sydney, are showing a comprehensive range of shot guns, both single and double barrelled, rifles, revolvers and automatic pistols. Both the above factories are well known in Australia and New Zealand, but new models are constantly being added to the representatives' range of samples.

The firm have been advised by their principals, A/B. B. A. Hjorth & Co., Stockholm, Sweden, manufacturers of "Primus" and "Bahco" goods, that they can now supply "Primus" stoves and ranges in nickel-plated finish at a slightly extra cost. This finish considerably enhances the appearance of the stoves and render them much easier to clean.

Pottery and Glassware

Glassware—British and Belgian.

Walter A. Cox Ltd., of 195 Clarence-street, Sydney, are displaying on behalf of The Company of Bristol Glasscutters Ltd., England, a comprehensive sample range of cut crystal ware comprising goblets, jugs, bowls and tumblers, the designs and patterns of which are presented in brilliant effects.

Hotel and domestic glassware from Verreries De Scailmont S/A, Menage, Belgium, is also being shown, and the range comprises high-grade plain, flanged footed and cut glasses of every description and for every purpose.

Art Tiles.

Mr. C. E. Mayo, of 209a Castlereagh-street, Sydney, is displaying on behalf of Maw & Co. Ltd., Jackfield, Shropshire, England, a wide range of tiles. In these the art decorations are beautifuly executed, and the colourings have been faithfully reproduced. Fish, birds, cattle and other rural subjects form the main theme for the panelling effects, but the manufacturers are prepared to execute special work from architects' designs or to submit sketches of any tile work which may be required to suit the characteristics of any individual building.

American Glassware.

Ayers & James Pty. Ltd., 19 York-street, Sydney, have received from the Imperial Glass Co., Bellaire, Ohio, U.S.A., a new range of pressed glass with cut finish of a fine rose-pink shade which they call "Rose Marie." Salads, fruits, trays, comports, water sets, and water jugs, sugars and creams are comprised in the range.

For J. E. Marsden Glass Works Inc., Ambler, Penn., U.S.A., they are introducing kitchen glassware known as "Kold-or-Hot." The articles, consisting of a variety of utility dishes for custards, puddings, also casseroles, moulds and bowls, are not unlike "Pyrex," but while it is claimed for them that foods may be poured in icy cold or very hot without risk of cracking, they are not recommended for putting into the oven.

Crystal Glassware and Christmas Goods.

A. J. Van Dugteren & Sons, Australia House, Carrington-street, Sydney, have received several samples of a new idea in cut crystal electric light standards. Coming in two shades of yellow and soft blue they present a practical reading lamp besides being in keeping with the most modern furnishings. The fittings are in electro plated nickel silver which gives distinction.

Samples of coloured cased cut crystal ware in red, blue and lilac are also shown, and as this class of crystal is greatly in demand on the Continent and America, the manufacturers have stated their willingness to produce in these shades any untinted design that has previously been manufactured by them.

Large open stocks of the following are now to hand for the Christmas trade—whiskies, sandwich trays, salads, comports 5 and 6 in., biscuit barrels, sugars and creams, jelly dishes, vases (assorted shapes and sizes), powder bowls, liquer decanters and glasses, cocktail shakers, perfume decanters, hair tidies, plates, sweets, water sets, tumblers, ports, sherries, clarets, champagnes and baskets.

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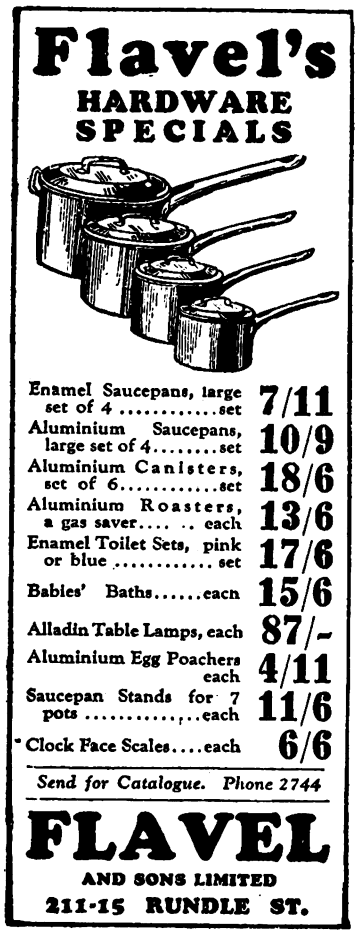
Make the Advertising Pay

A Page of Hints and Helpful Criticism

Send Us Your Ads ∴ Let Us Solve Your Problems

An Adelaide Example.

Flavel & Sons Ltd. have asked us to criticise the advertisement reproduced hereunder, but they do not state where it appeared, nor whether it was crowded in among a number of other advertisements—large or small.



In a case such as this it is difficult to express an opinion regarding the merits or demerits of an advertisement. In any case, so many articles are mentioned in a small space that very little scope is left for anything but a straight out list.

To commence at the top, it seems unnecessary in an advertisement of this size to mention the name of the firm twice. One-twelfth of the entire space is thus taken up in the first line.

Then the illustration, quite good in its way, draws attention to only one line out of ten—which number includes such diverse things as saucepans, toilet sets, babies' baths, and scales.

Setting the price so boldly is rather like putting the cart before the horse. The housewife requiring an aluminium roaster would not be attracted to it by a large 13/6, but a 12-point 13/6 would not escape her eye, nor her understanding, provided that her attention had been diverted with sufficient force to the words "Aluminium Roaster."

Prices set in very large bold type are sometimes used with great effect, but only where space justifies it.

If the advertisement is a daily insertion it would be better to specialise on one or two lines each day; then something attractive could be made of it.

However, the proof of the pudding is in the eating of it, and it would be interesting to know the results pulled by the advertisement as it apeared.

Exposition in Salesmanship.

Here is a principle to use in writing a selling presentation that we credit to whom it belongs, Benjamin Bills, the director of sales in the American Bond & Mortgage Co. He says:

> "The first underlying consideration in 'business talking' is that of 'locking arms versus locking horns.' That is to say, if you would have a man walk east but he would walk west, do not knock him down and drag him east, for this means that he has one black eye and you finally two (figuratively and sometimes literally speaking). Rather lock arms and walk west with him one block, then turn the corner north or south, and swing back east, and before he is aware of it, he is walking your way, although he thinks you are walking his way, because you started his way."

In other words, use expository principles of procedure that proceed by the explanatory process rather than argumentative principles of procedure that proceed by the processes of fight and debate.

Be equipped to meet argument, if it arises, but always study to side-step it. Ask no truculent questions. Have the other fellow's mind following you, not fighting you. Interpret, teach, explain, demonstrate, prove, but don't assert, argue, or contradict.

The best salesmen avoid argument and make their sales, so far as possible, by the expository methods of explanation and demonstration.

Sales are not (usually) made by fighting a prospect, but by leading him.—"Printed Salesmanship."

A Trade Character.

The trade character illustrated heerwith has been adopted by the Lawrence & Hanson Electrical



Co. Ltd., of 172 William-street, Melbourne. It is not often that an electrical firm adopt a trade emblem of any kind. This one suggests both electrics and radio and is at once dignified and effective.

Showmanship.

In advertising their own advertising service, E. W. Barney Ltd., of London, say:—

"All Advertising is Showmanship.

"The 'Walk up! Walk up!' of the big drum beater outside the show.

"Selling an article of hardware to the masses is Showmanship."

"Moulding public opinion the way you want it to go is Showmanship.

"Breaking down a prejudice, building up a vogue, is Showmanship.

"Disguise it, refine it, mask it, cloak it—it is still Showmanship."

With all of which we agree. And, since what is worth doing is worth doing well, it is well worth conducting your advertising in a Showmanlike manner.

DO IT WELL.

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Hardware in Great Britain

(Specially Contributed by 33/213.)

In Great Britain slackness in building activities finds reflection in the general display by ironmongers, particularly in builders' hardware. London displays, barometer fashion, may be taken to indicate existing conditions throughout the country.

Except in crockery, glassware, electrical and sporting goods, retail displays are not very striking or noteworthy. The pottery trade in England is experiencing a depression. Short days of work in the potteries is the rule rather than the exception. How far this condition is due to production exceeding the demand, or to goods imported from Continental Europe, is a moot question. Probably both are influencing factors.

Perhaps—and this is the present writer's personal impression—production follows too nearly stereotyped lines to induce a public over-supplied with goods of little difference in design, shape, and execution, to purchase, as it might if something distinctly novel were offered. Naturally, a certain amount of allegedly "new" attractions in ceramic production is finding its way into the show rooms. Thus, in Copenhagen ware was noted some happy combinations in animal subjects, but even these dainties leave the discerning cold. Anything striking or noticeably deviating from the stereotyped was lacking. An inquiry directed to a leading pottery which specialises in decorative ware, whether suggestions for quite novel designs and subjects would be considered, elicited no reply.

Seasonable sporting goods were somewhat lavishly in display, consisting in the main of goods which in no wise differ from those Australian wholesale houses offer and retailers display.

Household lines, such as the commoner kinds of kitchen crockery, enamelled, aluminium and iron ware of all the varieties so well known, are set out in seemingly unnecessary profusion. Intensive competition of necessity make prices very keen, while instalment and lay-by systems indicate that buyers generally are rather "hard up."

Among these commodities also were observed no distinct variations from the time-honoured designs; in such commodities cheaper lines cannot be expected to vary greatly. Porcelain enamelled baths, sinks, basins, and allied ware in general, are not strongly featured. Australian shops of equal status handling such goods are more elaborately equipped and displays are more lavish. The goods enumerated, and also gas and electric stoves, heaters, and all accessories, do not suggest superiority over those of Australian manufacture.

Orchard and garden tools attract attention rather by their price-cutting sale cards than through any arresting display. An occasional shop excepted, displays are predominatingly of the higgledy-piggledy order, characteristic of the cheap-jack. Judging by the prevalence of gardens about the English home, humble or otherwise, a good demand for gardening tools exists.

Silver and electroplated ware displays are largely in evidence. Lavish in assortment, these dainty metal creations are shown in tempting variety, in competition with, often in conjunction with, cut-glass, which is alleged to be displacing silver and E.P. ware in public favour.

Travelling goods are in fair supply in city shops. Yet, considering the keen rivalry between the various agencies which promote travelling, such goods are less in evidence than might be expected. Extension suitcases under peculiar trade names are assiduously featured in bids for public favour, but the time-tried suitcases, Gladstone bags, and other forms, in all leathers, hides, and fibre, including a smooth new variety of fibre resembling hide, easily hold their place.

In Piccadilly, Regent-street, and thereabouts, ladies' handbags appear in varieties of real snake-skin, including sea-snake in peculiar greenish tinge. These bags also come in dainty and odd combinations of such skins, and in light-coloured patterns of beads and other substances. Even kookaburra and gum-leaf-embossed Australian marketing bags were seen in a Westminster shop.

Mention must be made of a form of business which profoundly affects traders in many varieties of goods, including hardware—the great stores where the price is not more than sixpence for any article. There, on the tool display tables, one finds block planes priced 3d. to 6d. each, and larger at 6d. for each part, making a total of 1/- for a plane of appearance which in Australian shops are marked at least 3/6. A test of the cutting edge of the plane-iron suggested that these tools would not cut, whatever they may do after a visit to the grindstone. Spokeshaves are 6d.; good screwdrivers are the same price, and so on through the list of tools stocked.

Similar prices rule for bathroom fittings, door-locks, and door furniture, enamelled and aluminium kitchen and other utensils, even to shoe and stove blacking, polishes, and similar preparations. Even gramaphone records are a "tanner." White-handled dessert and dinner knives of stainless steel; nickel-plated fish knives and forks, spoons, knives and forks of many kinds, even to serviceable bread knives, are 6d. each, as are a vast variety of commodities in daily use and demand.

All the goods offered are of serviceable appearance. As a consequence, these great sixpenny speciality stores are thronged with purchasers. A large percentage of the goods sold is claimed to be British made. Be that as it may, the fact stands forth conspicuously that smaller traders in similar goods are unable to compete in the vicinity of such colossal stores whose operations affect the entire trade adversely. Indeed, in some cases suburban traders purchase the goods in display by the dozen. Female labour is mainly employed in the sixpenny stores. Whatever inimical effect these concerns may have upon traders individually and collectively, they undoubtedly tend to force London retailers into the position of cheap-jack traders and dispensers of inferior goods, largely imported, even from distant Japan, with detriment to Britain's industries and with reflex upon the employment of her people.

A Gentleman.

The true gentleman is the man whose conduct proceeds from good will and an acute sense of propriety, and whose self-control is equal to all emergencies; who does not make the poor man conscious of his poverty, the obscure man of his obscurity, or any man of his inferiority or deformity; who is himself humbled if necessity compels him to humble another; who does not flatter wealth, cringe before power or boast of his own possessions or achievements; who speaks with frankness, but always with sincerity and sympathy and whose deed follows his word; who thinks of the rights and feelings of others rather than his own; who appears well in any company, and who is at home when he seems to be abroad—a man with whom honour is sacred.—Selected.

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Personal and Social

Appointed Secretary.

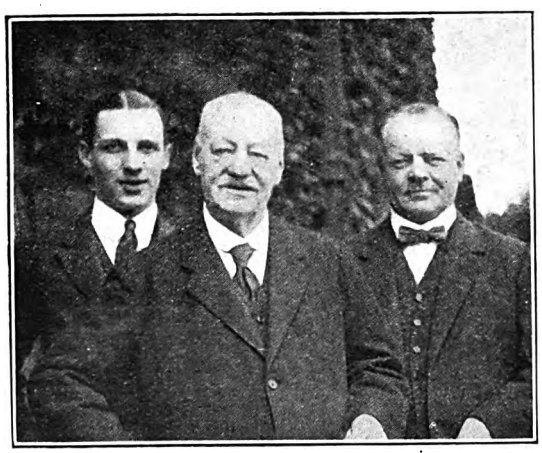
In succession to the late Mr. T. I. Loutit, Mr. F. E. Robertson has been promoted to the position of secretary of Harris, Scarfe, Ltd., Adelaide.

U.S. Trade Commissioner Service.

Mr. Julian Foster, of the United States Bureau of Foreign and Domestic Commerce, was recently appointed Trade Commissioner in New Zealand. For a good many years America has had a trade commissioner in the Commonwealth, but this is the first appointment of the kind in the Dominion. Mr. Foster recently reached Wellington, which he will make his headquarters.

Manufacturing Visitor From England.

Mr. Denis W. Heath, a director of Samuel Heath & Sons Ltd., brassfounders, spinners and stampers, Birmingham, who arrived in Australia in April last, having previously visited the principal towns in New



Zealand, has now completed the rounds of the Australian States. The object of his mission was to inquire into the particular needs of the trade both in Australia and New Zealand so far as his firm's products are concerned. His observations, he says, will result in an appreciable increase in the range of goods hitherto supplied. This is particularly interesting when it is remembered that the firm has had direct representation in Australia and the Dominion for some twenty-five years. During his stay in Australia Mr. Heath received cable advice that his firm had purchased the entire business of Howes & Burley Ltd., Birmingham, manufacturers of general brassfoundry, and in future the specialities hitherto made by that firm will be produced in the Heath name and quality.

The photograph here produced shows three generations of the directorate of Samuel Heath & Sons Ltd. Mr. A. Heath, in the centre, though having passed his eighty-seventh milestone, is still active in the business. On the right is Mr. A. W. Heath and on the left Mr. D. W. Heath, the present visitor to Australia.

The firm are represented in Australia and New Zealand by Essex R. Picot Ltd., of Sydney, Melbourne, Brisbane, and Christchurch (N.Z.).

Hymeneal.

Mr. David Hare, a director of E. H. Collis Pty. Ltd., of Melbourne, was married on August 16 to Miss Doris Massina. At the time of writing the happy couple are away on their honeymoon.

Mr. C. N. Kerr, the New Zealand representative of A. & F. Parkes Ltd., and other British manufacturers, was married on April 15 last to Miss Iris May Perrett.

Social Evening.

Finding it necessary to increase their space, Podmore & Sons have added another floor to their premises in Bowen-street, Adelaide. Measuring about 100 ft. by 30 ft., this floor will be used for tank making and sheet metal work. By way of opening, the firm gave their employees a social and dance in the new room on August 19. The firm, the employees, and the visitors were toasted in turn at the supper tables.

Staff Dinner.

On the evening of August 3 the directors of Mate's Ltd., Albury, New South Wales, entertained the staff to dinner. Several shareholders were also present. Mr. D. A. Thompson, the governing director of the company, who presided, apologised for the absence of Mr. J. B. Wilson and Mr. T. J. Knappett.

Proposing the toast of the firm, Mr. F. J. Belbridge, who has been their solicitor for thirty years, said Mate's had not merely kept abreast but ahead of the town of Albury. The business had been built upon honesty and integrity and in the hands of the late Mr. G. A. Thompson had made wonderful progress. With youthful enthusiasm and imbued with new ideas, Mr. D. A. Thompson seemed likely to maintain the expansion.

In his reply Mr. Thompson outlined the history of the business. So far as could be learnt, it went back to 1850, when the late Mr. T. H. Mate opened in his own name. In 1890 he formed the company of T. H. Mate & Co. Ltd., and the late Mr. G. R. Thompson became the manager. Later still came the present company. As indicating the growth of the business, he mentioned that in 1897 the expenses were £11,283 and the turnover £97,000, whereas in 1925-26 the expenses were £40,427 (wages alone representing a full £30,000 of this), and the turnover £203,000. The latter was a record for the firm, but the year then concluded would surpass it. Plans were being prepared for the enlargement of the company's premises.

Mr. R. Thornton, the managing director, eulogised the services of Mr. Arthur Jones, who had been with the firm for the long period of fifty-three years. On behalf of the employees, he presented Mr. Jones with a cabinet of cutlery, a gift which was feelingly acknowledged.

The hall being cleared for the purpose, dancing was enjoyed by the assembled company.

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Death of Mr. R. T. Palmer.

Mr. Richard Thomas Palmer, whose death is reported from Adelaide, was well-known in the hardware trade of that city. He had spent most of his life there and was in his sixty-ninth year.



Late Mr. R. T. Palmer

After leaving school the late Mr. Palmer was engaged for a time in the milling business of his father at Linwood. Then coming into the city he obtained employment with W. & T. Rhodes, where he made his first acquaintance with hardware. Later he joined McLean Bros. & Rigg Ltd., for whom he travelled all over South Australia and became manager of the machinery section of the business. When in 1901 the business was sold, he and another employee, Mr. A. H. Preston, became the purchasers and with certain others were registered as Palmer, Preston & Co. Ltd. to carry it on. In 1911 an amalgamation was effected with an older company, Harrold, Colton & Co. Ltd., the new proprietary trading as Colton, Palmer & Preston Ltd., with Messrs. Palmer and Preston as managing directors. The company are wholesale ironmongers (general and saddlers'), and oil and colour merchants, and also manufacturers of tinware, steel furniture, saddlery, harness, and leather and canvas goods of various kinds. They hold a number of exclusive agencies for roofing material, paints, belting, and other lines. Their headquarters are at 53-59 Currie-street, Adelaide, with branches at Port Adelaide, Port Pirie, Broken Hill, and London. Mr. Palmer remained one of the managing directors until March of last year when, for health reasons, he resigned and took a trip to Europe. He retained a seat on the board, however, and until the end was connected also with other business concerns.

Of a retiring nature, the late Mr. Palmer never sought any public position. For many years he was a member of the College Park Congregational Church and a life deacon. His wife died some three years ago, but he leaves a family of five—three sons and two married daughters. Two of the sons, Mr. Roy H. Palmer and Mr. Linwood Palmer, are connected with the business.

Death of Mr. J. J. Weekes.

On August 2 the death occurred of Mr. John James Weekes, chairman of directors of J. J. Weekes Ltd., 475 Kent-street, Sydney, coachbuilders,' saddlers', and general ironmongers, aged 74 years.

Born at Hatherleigh, Devonshire, England, the late Mr. Weeks came to Australia at an early age. He was the founder of the firm which bears his name, having launched out on his own account some fifty years ago as Weekes & Backhouse, in Druitt-street. He afterwards erected the premises at the corner of Kent and Druitt-streets, where the firm is still located. In 1905 he purchased the importing business of Greatrix & Son, which was absorbed by the present limited liability company. In 1914 the firm of R. & H. Binnie, coach and saddlers' ironmongers, was taken over. In 1919 the Binnie Wheel Co. was formed and carried on at Zetland as a branch business.

Mr. Weekes entered the manufacturing field when it was but little developed, and was among the first in Australia to produce locally an article which compared favourably with European goods. During the Great War he secured several important contracts for the supply of certain lines and was able to import the mountings, manufacture the goods and deliver them in England cheaper than they were being manufactured there—no mean achievement.

Of a retiring disposition, the deceased gentleman took no part in public life. His whole energies were devoted to his business. He was twice married and leaves a widow and two sons.

Death of Mr. S. Scott-Young.

Mr. Samuel Scott-Young, who recently retired from business after representing a number of British manufacturers in Australia and New Zealand over a period of thirty years, died at his residence in Mosman, Sydney, on August 20, at the age of 76.



Late Mr. S. Scott-Young

Not only was the deceased well known and highly respected in commercial circles in all the principal cities of the Commonwealth, which he visited regularly, but by his acts and interests he endeared himself to an unusually wide circle of friends, and the various institutions with which he was connected. As stated by Dean Talbot, who delivered an impressive address at the funeral service in St. Andrew's Cathedral on August 22, "The Church mourned one of her most faithful laymen, for he was a lay canon of the Cathedral and occupied many high positions in the Church. The Masonic fraternity mourned the loss of one of its most devoted brethren. The community mourned a valued and trusted citizen. The late Mr. Scott-Young was particularly interested in the Home Missionary Society connected with the cathedral of which he was for many years honorary treasurer, and in difficult circumstances on frequent occasions, he was wont to say 'We must do something,' and would find a way or means of doing it."

In the Masonic fraternity the late Mr. Scott-Young was held in high esteem. He was a Grand Lodge officer both of England and New South Wales. Years ago he worked up through the various official positions in the New South Wales Grand Lodge to that of Senior Warden, and then for some time was Grand Treasurer, and only last year he acted again as Senior Grand Warden. He was also the first Grand member of the N.S.W. Supreme Grand Royal Arch Chapter, and was a distinguished member of the New South Wales Grand Mark Lodge, and on August 20 the "Scott-Young" Mark Lodge at Albury was dedicated in his honour.

No better appreciation of his work, his wide sphere of interests, and the high esteem in which the deceased gentleman was held, could be recorded than the numbers who attended the service at St. Andrew's Cathedral and proceeded to the cemetery—a company that almost filled the huge building.

Mrs. Scott-Young survives her husband, and there are four sons and three daughters.

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News from Abroad

South African Orders for Safety Razors.

An order for 20,000 safety razors for the use of the Union Defence Force has recently been placed by the Union Government with a British firm, the Autostrop Safety Razor Co. Ltd., manufacturers of the "Valet" safety razor. The Rhodesian Government also have placed an order for 2000.—"Industrial and Commercial South Africa."

Engineering Exhibition in London.

A Shipping, Engineering and Machinery Exhibition is taking place at Olympia, London, from September 8 to 24. At this display Henry Pels, of London, will stage under actual working conditions nine electrically driven punching, shearing, and cropping machines, including a laminated spring press and a 200-ton press. Some of these tools are of entirely new design and are shown for the first time.

British Combine in South Africa.

A large British combine has commenced operations in South Africa. It is represented by Major G. Fetherston, D.S.O., M.C., who until recently was H.M. Trade Commissioner in South Africa. The combine, known as the Agricultural and General Engineers, Limited, is a concern in which fourteen leading British firms are associated. The South African headquarters have been established at Johannesburg. —"Industrial and Commercial South Africa."

Heavy Steel in Great Britain.

A cablegram from London published in the Australian press of September 2 runs as follows:—

"In an effort to recover the dominance of British heavy steel, makers offer a rebate of 7/6 a ton on joists and 5/- a ton on other defined materials to consumers who do not purchase from the Continent.

"The signatories point out that the present imports mean idle collieries, coke ovens, furnaces, and iron and steel works, while certainly over 100,000 workers are idle and losing their skill."

Latin Americans Visit United States.

Fifty prominent business men from ten Latin American countries—Argentina, Bolivia, Brazil, Chile, Colombia, Eucador, Guatemala, Mexico, Panama, and Peru—recently visited the chief industrial centres throughout the United States of America. The tour was made under the auspices of the Automobile Chamber of Commerce and the Highway Education Board, two national organisations. At East Pittsburgh the party were the guests of the Westinghouse Electric Co. from whose works they broadcasted short messages in English, Spanish and Portuguese.

Business Taken Over,

Samuel Heath & Sons, Ltd., of Leopold-street, Birmingham, have purchased the goodwill of the business of Howes & Burley Ltd., of Holloway Head, Birmingham, together with the stock and such press tools as appertain to the manufacture of electric, acetylene, and oil lamps, motor horns and mirrors, ventilators and general motor accessories, and blow lamps and wickless stoves.—"The Ironmonger."

In Australia and New Zealand Samuel Heath & Sons Ltd. are represented by Essex R. Picot Ltd., of Sydney, Melbourne, Brisbane, and Christchurch (N.Z.).

Production of Zinc.

The total production of zinc throughout the world amounted last year to 1,237,800 tons. The United States produced 46.8 per cent. of the whole, followed by Belgium with 15.4 per cent., and Poland with 10 per cent. Smaller quantities were produced in France (6 per cent.), Germany (5.5 per cent.), and Canada (4.5 per cent.). Since 1921 the output of Polish zinc has risen from 68,900 tons to 123,700 tons.

The zinc production of Australia for the year 1926 is not yet available. In 1925 the total world production was 1,147,451 tons, of which Australia contributed 20.0 per cent., or 229,809 tons, valued at £1,135,057.

New Insulating Material.

A new insulating medium, "Tillit," is being placed on the market by the Swedish firm Hugo Tillquist, of Stockholm. It is used mainly for waterproofing and as a preventive against rust, but may also be used as an electric insulator. It is stated that only two coats are needed to make it adhere to a damp wall, making it perfectly watertight.

According to the report, "Tillit" has been tested at one of the naval forts at Vaxholm, outside Stockholm, where the barracks and storage rooms below the sea level are extremely damp, and the results of these tests are said to have been very successful. Tests carried out at the Metallurgical Institute in Stockholm seem to prove it an excellent rust preventive with good adhesive qualities.

Death of Mr. E. H. Gary.

The cable reports the death of Mr. Elbert H. Gary, or Judge Gary, as he was usually called. He was chairman of the United States Steel Corporation and had reached the full age of eighty years. Beginning life as a farm labourer in Illinois, the late Mr. Gary became in turn lawyer, judge, and lastly financier. For twenty-five years he practised law in Chicago and was afterwards county judge for eight years.

In 1898 he became associated with the organisation of the Federal Steel Co., and removed to New York to occupy the position of president. Later he took a leading part in the organisation of the United States Steel Corporation. Since 1909 he had been president of the American Iron and Steel Institute.

British Industries Fair.

The Comptroller-General of the Department of Overseas Trade, Sir W. H. Clark, K.C.S.I., C.M.G., informs us that arrangements are already well in train for the holding of the British Industries Fair simultaneously in London and Birmingham from February 20 to March 2 next. An additional 100,000 square feet of exhibition space is being provided in London at the White City, and we understand also that extensions at Castle Bromwich, Birmingham, will run to 80,000 square feet. This will ensure an even more representative display of British goods than usual, and oversea buyers, who were present in record numbers at the last Fair, will doubtless arrange that their prospective visits to Great Britain in the early part of 1928 will coincide with what has justly become widely known as the world's greatest national trade exhibition.—"The British Export Gazette."

British Ironmongers and Hire Purchase.

A contributor to a British trade paper writes as follows:—

"It is certainly refreshing in these days of easy credit to find any trade organisation expressing disapproval of the hire-system. At the conference of the Ironmongers' Federated Association at Brighton last week a long discussion took place on the proposal that ironmongers generally ought to encourage the hire-trade, as by not doing so they were losing business. The result of the long discussion was a remark by the president to the effect that he thought he could summarise the feeling of the conference by saying that they should discountenance hire-purchase. That this is likely to discourage the credit system I do not for one moment

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believe, but having regard to the way in which hire-purchase is being advertised at the present time, I feel rather inclined to congratulate the ironmongers on the courage of their attitude, though I must admit that it reminds me, to some extent, of the famous Mrs. Partington."

Maizestalks Yield Explosives.

According to a recent press report, the problem of commercial utilisation of maizestalks is believed to have been solved after many years of effort. The process of Dr. Bela Dorner, a Hungarian chemist, has been brought to the United States, tested by experts, and pronounced practicable and economical. By this method artificial silk has been produced from maizestalk pulp. The technical obstacles have been the pith and knuckle of the stalks, which could not be removed economically. The Dorner process grinds up the entire stalk, which means that it is possible to convert a waste material into abundant supplies of pulp for making paper, artificial silk, motion-picture films, explosives, celluloid, lacquers, artificial leather, pyralin and other products. Now the maize belt farms destroy annually more than enough stalks to supply the pulp requirements of the United States. By-products of the Dorner process can be used in the manufacture of alcohol, cattle feed, butanol, furfural, lactic acid, etc. These by-products will bring an additional revenue.

New Road Pavement of Swedish Invention.

A new system of road paving which, at 19° C., will stand a pressure of 6.7 tons and four times that pressure at 50° C. (the corresponding figure for asphalt is 4.6 tons), has been invented by a Swedish engineer, Mr. John Behmer, of Eskilstuna, who has been working on the problem for twenty years. The inventor declares that his roads will be cheaper than any kind of pavement at present in use, will not be softened by heat, and will not be made slippery by rain. Tests made by the State Material Testing Institute verify his statements with regard to the pressure the pavement will stand.

Instead of an ordinary roller, a special machine resembling a locomotive, which strongly compresses the paving material, is used. The inventor points out that a roller will never give the best results, as it has a tendency to roll instead of compress. In one minute the machine prepares 6 metres of road 2 metres wide, according to a newspaper report. Demonstrations made for country road authorities are said to have been very successful.

Foreign Trade and Travel Exhibition.

From November 11 to 20 of this year a "great Pacific Foreign Trade and Travel Exposition" is to be held in the Civic Auditorium at San Francisco. Here commodities and manufactures entering into the trade of California will be featured and the importance of Pacific travel emphasised.

"Not only will American manufacturers, exporters and importers make exhibits at the Exposition, but also there will be displays of the products of Japan, China, Dutch Indies, Philippines, Hawaii, Australia, New Zealand, Mexico and various countries of Central and South America. All countries are being invited to participate. The steamship companies and travel agencies are to feature models of modern liners making San Francisco a port of call, and displays of photographs representing the colour and life of travel abroad."

The director-general of the exhibition is Mr. William D'Egilbert, of 308 Merchants' Exchange Building, San Francisco, who will have the advice and assistance of a board of governors and an organisation committee.

Large Talc Deposit in Canada.

The very considerable known deposits in Canada of talc and its massive variety, soapstone, have, it is reported, been greatly added to by a find in the vicinity of Banff, Alberta, which is described as pure massive talc, is said to be 75 ft. in width, and to have been traced for 3000 ft. Active development is in prospect.

The principal source of talc for talcum powder in Canada has so far been a deposit in Madoc county, Ontario, from which 13,678 tons, valued at $174,116, were mined in 1925. In addition to the amount marketed in Canada, considerable quantities have been shipped to the United States, and recently to the United Kingdom, Germany, and other countries.

Soapstone blocks for lining the roasting furnaces of paper mills using the sulphate process have been produced for several years near Robertsonville, Quebec, while ground talc suitable as a filler in paper, in dusting rubber and for various other purposes has been produced in a small way from various deposits of grey talc schist in British Columbia. The talc discovered near Banff is claimed to be suitable for toilet use, and a variety of industrial and household uses.

Death of Sir John Davies.

On September 1 cable advice was received in Melbourne of the death of Sir John Davies, vice-chairman of Baldwins Ltd., well-known as ironmasters and iron and steel manufacturers. Interested in various other companies, the late Sir John was vice-chairman of the South Wales Siemens Steel Association. He was a member of the executive of the National Federation of Iron and Steel Manufacturers, and of the council of University College, Swansea, Wales. During the war he held an appointment from the Ministry of Munitions on the committee controlling shell factories. In addition to his business activities Sir John Davies gave valued assistance in municipal and charitable work. He was born in Swansea in 1864 and five years ago was made a Companion of the British Empire and a member of the Legion of Honour in recognition of his services.

In Australia the Baldwin interests or agency were recently amalgamated with those of Richard Johnson, Clapham & Morris Ltd., the combined companies trading as Baldwins & J.C.M. (Aust.) Pty. Ltd., with headquarters in Sydney and branches in Melbourne, Brisbane and Adelaide.

Motor Transport Congress and Exhibition.

From November 14 to 16 next the World Motor Transport Congress will meet in London, and on November 17 the delegates will pay an official visit to the Commercial Motor Transport Exhibition at Olympia which opens on that day. Organised by the Society of Motor Manufacturers and Traders Ltd., the congress has distinguished backing, and H.R.H. the Prince of Wales has accepted the position of president.

The object of the Congress is:—"To secure consideration and discussion of subjects calculated to stimulate action by Governments and other important bodies, such as municipalities, chambers of commerce, railways, automobile clubs, and all interests concerned, along lines consistent with the development of road motor transport throughout the world."

Six meetings of the congress will be held in all, and the broad headings of subjects for discussion are to be as follows:—(1) Road construction and improvement in relation to the development, efficiency and economy of road transport; (2) motor transport as an instrument of development of world resources; (3) the necessity for co-operation between road and rail transport; (4) the development of motor vehicles suitable for service on bad roads and for cross-country use; (5) the improvement of facilities for international travel by road; and (6) fuels and fuel supplies for road motor vehicles.

The organiser of the congress is Mr. Horace Wyatt, and the offices are at 21 Northumberland-avenue, London, W.C.2.

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Interstate General News

Theatrical Buildings in New Zealand.

Fuller's Theatres Ltd., of Sydney, are about to erect a new theatre in Auckland near, but not on, the site of one recently burned down. A contract running into £70,000 has been let to J. T. Julian & Son Ltd. for a building to seat 2,000 people. It is to be known as the Opera House. The same firm have announced their intention to re-seat and renovate throughout His Majesty's Theatre at Wellington.

Bureau of Steel Manufacturers.

The fourth annual conference of the Bureau of Steel Manufacturers of Australia was held at Newcastle, New South Wales, early in August. Various manufacturing interests were inspected by the delegates during their stay, including the wire works of Rylands Bros. (Aust.) Ltd., the galvanised iron factory of Lysaght's Newcastle Works Ltd., the works of the Vickers-Commonwealth Steel Products Co. Ltd., and the colliery at Belmont of the Broken Hill Proprietary Co. Ltd.

Business Closed Down.

The ironmongery business which has been conducted at Reefton, New Zealand, for the past twenty years by H. G. Williams & Co., was closed down early in August, we learn from a correspondent.

With a population of between 1000 and 2000, Reefton is on the west coast of the South Island forty-seven miles north of Greymouth by rail. Its prosperity was founded on the coal measures and gold mines in the vicinity, and these are now only worked on a small scale.

Tasmanian Manufacturing Proposal.

Hopes are entertained in Launceston, it is said, of establishing in Northern Tasmania somewhere the manufacture of stainless steel. Efforts are being made at any rate to interest investors in such an enterprise.

The iron ores of the Beaconsfield district contain chrome, and as far back as the seventies of last century steel possessing remarkable qualities was made from it by a Sheffield cutler. So runs the report. It is the utilisation of these ores for the production of stainless steel that is now suggested.

Building in New Zealand.

During the year ended March 31 last, the building work carried out in the cities and towns of New Zealand exceeded in cost £8,000,000. Taking them in the order of amount expended, the provincial districts work out as follows:—Wellington, £2,521,742; Auckland, £2,248,915; Canterbury, £1,523,655; Otago, £656,434; Hawkes Bay, £394,873; Taranaki, £354,708; Southland, £318,412; and Nelson, £134,644. These returns, collected by the Census and Statistics Office at Wellington, do not include country building—nothing outside the boundaries of cities, boroughs and town districts.

A Year's Output of Iron and Steel.

During the year ended May 31 last the works at Newcastle, New South Wales, of the Broken Hill Proprietary Co. Ltd., produced 343,801 tons of pig iron, 340,399 tons of steel ingots, 309,723 tons of blooms and billets, 343,723 tons of steel rails and structural material of different kinds (from 28 in., 18 in., 12 in., and 8 in. mills), 77,692 tons of rods, 5987 tons of fishplates and tieplates, 13,283 tons of acid steel, and 10,264 tons of castings. The output from the coke oven plant was 350,865 tons of coke with corresponding quantities of tar, ammonium sulphate, benzol, solvent naphtha and toluol.

Labour Trouble at Lithgow.

The works at Lithgow, New South Wales, of Hoskins Iron & Steel Co. Ltd., are practically idle at the end of August because the management refused higher wages to certain employees. These ceased work when the "notice" served on the company expired, and with their "downing of tools" as was to be expected, others became involved in the trouble, including workers in the company's ore quarries and coal mines. At date of writing some 1,700 men are idle and the stoppage is spoken of as the most complete in the history of the undertaking for the past sixteen years. Few persons are left at work except the office staff and the apprentices. The management consider the demands unreasonable, and are disinclined to make any overtures for a resumption of work.

Concrete Transmission Poles.

Most of the electric power boards throughout New Zealand use wooden poles which they obtain from Australia, either mixed "hardwood," or "ironbark." But the Marlborough Power Board has adopted concrete poles to the exclusion of timber of any kind, and already over 4,000 of such concrete poles have been erected. They are from 26 ft. to 40 ft. in length, and some of them have come through two winters of heavy frosts without showing signs of deterioration, so it is said at any rate. Made in New Zealand, they are dearer in first cost than "ironbark" (the best for the purpose), and about the same price as steel, but the maintenance cost is said to be less than any other material would involve. Other power boards are watching the experiment with a great deal of interest.

An Honourable Action.

What was referred to as "a highly honourable action" was disclosed in the Practice Court, Melbourne, on August 12. The Court was asked to sanction the reduction of the capital of Mayne & Holbery Pty. Ltd. by cancelling 7784 shares of £1 each belonging to Mr. John Mitchell Shippen, the managing director of the company. This company are manufacturers of dairy equipment, including milk cans, coolers and vats, with works at Sunbury-road, West Footscray, and according to an affidavit made by Mr. Shippen, they added in 1924 the manufacture of steel window frames. Keen competition was met and heavy losses occurred on several large contracts. The entire losses amounted to £7784 and this Mr. Shippen was prepared to meet in the way suggested. Mr. Justice McArthur gave the necessary sanction.

Magnesite Deposits in Queensland.

The Queensland Government reports that large deposits of magnesite are now being worked at Kumwarara, on the north coast railway line, and that there are now 70 tons at grass. Prospective orders indicate that it will not be long before 3000 tons will be despatched monthly, and it is very probable in the event of development on a large scale that a secondary industry will be established to deal with the by-products. Magnesite is native carbonate of magnesia, occurring in white, compact masses, or sometimes as crystals. It is used for the lining of furnaces, where great heat is required,

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and in the making of cement for floors; also as a substitute for plaster of paris, and as a source of magnesia. Formerly the world's supply came mainly from Greece, but the great demand led to large development of deposits in the United Staes.

The Call to Economy.

At the annual general meeting of the Commercial Bank of Australia Ltd., the chairman of directors (Mr. John L. Webb) spoke of the Australian financial position in terms of caution.

"The value of the imports to Australia for the twelve months ended 30th June, 1927, amounted to £164,744,927, the value of our exports for the same period being £144,775,541. The subject of the adverse balance of trade disclosed by the above figures has been so fully ventilated recently in the press and elsewhere that it is unnecessary for me on this occasion to dwell further upon the matter beyond pointing to the necessity for restricting the importation of luxuries and non-essential articles of various kinds, which could well be deferred until financial and general conditions show some improvement."

Alleged Theft of Ironmongery.

In the General Sessions at Melbourne on August 22 a clerk named Harry Edward Darvill appeared to answer a charge of theft. Between June, 1925, and July, 1926, the accused had been in charge of the ironmongery department at Newmarket of F. K. Cox & Co. Pty., Ltd. He left the employment with nothing against him. In May of the present year he was accused of stealing the goods of another firm, and in connection with this charge certain goods which he had disposed of were recovered and identified by Cox & Co. as coming from their stock, although they had not missed anything at the time. To the detectives Darvill admitted that he had given the goods to a man named Adams whose credit had been stopped by his employers. This admission he withdrew in Court, and the jury found him not guilty. He was accordingly discharged.

An Ironmonger's Estate.

In November, 1926, John N. Spreckley, a Melbourne ironmonger, died intestate leaving an estate valued at about £20,000. He had no next of kin resident in Australia, and on January 6 following, the curator of estates of deceased persons obtained a rule to administer. Subsequently one of the trustee companies were authorised by a brother in England to take out letters of administration. The registrar of probates made a grant accordingly, but the curator entered a caveat on the ground that the matter having been placed in his hands, only the Supreme Court could take it away. On August 10 Mr. Justice Lowe, before whom the matter was brought, upheld this contention, and by consent of the parties proceeded to deal with the case as if a proper application had been before him. He decided that a grant to administer should be made to the company, provided they paid the curator 5 per cent. commission on so much of the estate as he had actually realised, and something more for work done on the unrealised portion. Costs of both parties to come out of the estate.

Bath Heater Dangers.

A young woman named Flora McLeod was found dead in a bathroom at St. Kilda, Melbourne, early in the month. The gas had been lit under the heater and both gas and water were turned on when the fatality was discovered. Death was due to asphyxiation from carbon-monoxide gas. The evidence went to show that while the heater had been properly installed the ventilation of the bathroom at the time of the accident at least was inadequate. Part of the window was open at the top, but the blind had been pulled right down. A verdict of accidental death was returned, the coroner adding that the Metropolitan Gas Co. ought to give users of such bath heaters full and careful instructions.

It has since been announced that the Victorian Government are preparing an amendment of the Health Act dealing with this matter. Its aim will be to ensure correct installation, systematic inspection, and proper use of bath heaters. Clauses will provide that bathrooms shall be designed and ventilated to prevent the possibility of asphyxiation of users from fumes or carbon-monoxide poisoning.

Victimising City Firms.

At the Melbourne City Court on September 1 the hearing was begun of a series of charges against a man named James Lloyd of obtaining goods from several city firms by false pretences.

From George Russell Pty. Ltd., Edments Cash Stores, and R. Werner & Co. Pty. Ltd., he had obtained goods by professing to represent Mr. A. E. Emry, of Shepparton. On these charges he pleaded guilty and was committed for trial at the Supreme Court.

In association with Alfred Bone, the accused also obtained goods from John Danks & Son Pty. Ltd., professedly on behalf of the Methodist Ladies' College, and from the Edison Swan Electric Co. Ltd., other goods ostensibly for Mr. J. V. Kennedy, who had an account with the firm. On these charges both accused refused to plead, and were committed for trial.

On the following day William Jensen, "a young man of good appearance," was called upon to meet a further series of charges of a similar kind. The firms defrauded were C. Werner & Co. Pty. Ltd., the Direct Supply Jewellery Co., John Danks & Son Pty. Ltd., W. Wood & Co., and the Edison Swan Electric Co. Ltd. In these cases, or in some of them, the name used was A. Miller & Co., of Deniliquin. Accused was committed for trial.

With James Lloyd, Jensen was also presented on a charge affecting the Lawrence & Hanson Electrical Co. Ltd. Here again the name used was A. Miller & Co., customers of the firm concerned, and the amount involved was over £3. Both accused were committed for trial.

In all cases the fraud was cleverly worked. Business cards and signed orders which seemed all right were produced by the accused, and it was only when the accounts reached the parties concerned that the misrepresentations were discovered. The goods, it will be understood, had been taken away.

A Threatened Enterprise.

Early in the month a deputation from Gawler waited upon the Premier of South Australia (Mr. R. L. Butler) to urge that in some way assistance should be given to May Bros. Ltd. The deputation represented the tradespeople of the town and the employees of the company, of whom there were said to be eighty. Long established there, and doing excellent work as makers of agricultural implements, the factory meant a great deal to the district, said those who spoke, and its closure would not only be a loss to Gawler but accentuate the unemployment problem in Adelaide itself.

The Premier expressed his regret that there should be any suggestion of the closing down of a valuable industry. Just how or whether the Government could help he did not see. It seemed to him that more capital was needed, and that ought to be provided by those who had faith in the works and stood to lose by their cessation.

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Speaking subsequently, Mr. G. H. Holland, the chairman of directors of the company, admitted the need of additional capital, but said there was every indication that the public would respond to the directors' appeal in that regard. If they did so an enterprise which was supplying a good class of agricultural implement all over Australia would be saved.

Questionable Trading Systems.

In New Zealand, early in August, one of the Rotary Clubs discussed the "hire-purchase" and "club" systems of trading. The opener said the growth of both these systems was regarded by business men with a good deal of apprehension. By the "club" system was meant the clubbing together of certain persons, one of whom bought for the whole. The merchant looked to him for payment, and he collected from the actual purchasers the weekly instalments. One of the greatest temptations attending this system was that the buyer or person who ran the club would demand an increasing commission from the merchant and threaten to take his business elsewhere if he did not get it. The "hire-purchase" system was steadily increasing, and he knew of one house which had about £100,000 outstanding in this way.

A few of those who took part in the discussion were able to say something in favour of both systems, but even these admitted that they were liable to abuse, and were in fact being abused. Luxuries were being obtained in this way, a course of trading which was bound to cause financial embarrassment. Some young people were induced to buy goods on the "hire-purchase" system, and afterwards sold them without knowing that the articles were not really theirs.

Trade of New Zealand.

Following are the imports and exports of New Zealand for the year ended June 30 compared with the corresponding figures for the previous year:—

	1926-27.	1925-26.
Exports	£46,394,582	£46,324,994
Imports	47,197,387	52,125,552
Excess of Imports	£802,805	£5,800,558

The improvement in exports is very light, but imports have decreased nearly five millions, bringing them closer down to the level of the purchasing power. There is still an adverse balance of trade, which needs righting to bring back better conditions in business all round.

Imports for the half-year ending June 30 were £22,200,704, of which the share of hardware and metal goods was £3,481,849, or 16%, and there is a decrease of 1½% in these goods. Following are the principal items of import in this section for the half-year ended June 30, 1927, 1926, and 1925 respectively:—

	1927	1926	1925
Hardware and Metals—			
Cement	11,687	5,851	5,695
Hardware, Cutlery, etc.	485,367	547,633	561,873
Iron—Bar, Bolt, Rod	192,043	140,072	174,987
Bolts and Nuts	42,080	49,419	59,449
Plate, Black	68,885	52,953	73,691
Galvanised Sheet	331,400	318,230	339,856
Fencing Wire	53,321	63,570	74,488
Barbed Wire	23,881	40,069	39,465
Pig and Scrap	9,000	18,546	25,112
Pipes and Fittings	290,313	311,268	290,247
Lead	35,520	61,369	50,237
Machinery—Dairy	43,507	55,799	66,668
Agricultural	72,445	81,205	63,115
Electric	1,123,962	1,092,442	1,100,741
Engines—Gas, etc.	86,545	143,919	113,845
Mining	7,679	12,718	8,771
Sewing	48,824	47,144	48,862
Nails	40,974	38,452	48,312
Plated Ware	35,092	36,399	32,838
Railway and Tram Plant	141,732	85,476	328,842
Tin and Tinware	146,300	145,591	122,860
Tools	155,751	166,620	156,752
Wire Netting	35,651	19,987	61,461

Lead at Broken Hill.

On August 25 soft foreign lead was quoted in London at £22/12/- per ton or fully £10 less than it was twelve months ago. Coupled with considerably increased costs of production this is a serious matter for the mining companies of Broken Hill, and two of them—the Broken Hill Proprietary Co. Ltd. and the Broken Hill Proprietary Block 14 Co. Ltd.—have announced their intention of suspending operations unless the price increases materially within the next few weeks. The two companies are related to this extent that the ore of the Block 14 is treated at the other company's mill. Their position is that the industry has become unprofitable and that it is better to bear overhead charges than continue to produce at a serious loss. If and when they cease working it will mean the discharge of 1350 men and youths.

Although the drop in the price of metals is the chief factor in this unhappy situation there are other factors. Recent legislation in New South Wales has increased costs of production for every mining and manufacturing company throughout the State. Hours of work have been reduced, while workmen's compensation and child endowment have cast additional burdens upon the employer. Some employers may be able to "pass it on" to the consumer, but in the case of those who have to sell at world's parity in London that is quite impossible. Addressing the shareholders of the Broken Hill Proprietary Co. Ltd., the chairman of directors (Mr. H. G. Darling) said that the reduction in the effective hours from 35 to 30 hours a week meant a corresponding reduction in output. "The most serious aspect of the hours question at Broken Hill was the reduction from three to two shifts daily. But for this the present output of ore would have been 50 per cent. better. Increased output would have been attended with lower costs, enabling ore to be worked which under present conditions had to be abandoned. Improved appliances and methods had been introduced from time to time which, concurrently with high metal prices, had tended to mitigate the effects of adverse conditions. Lead producing countries not working under such stringent conditions had a relatively lower producing point, and, in addition, were not forced to carry the load of experimental legislation. Any new mining field in New South Wales would have to be extraordinarily rich to develop under present day costs and conditions."

Victorian Hardware Club.

On August 16 the president of the Victorian Hardware Club (Mr. J. G. Black) entertained various principals of hardware firms at afternoon tea. Mr. Black wished to show the visitors the new club lounge and other improvements, and took the opportunity also of acquaining them with the progress made since the new building was erected.

Those present included Messrs. Alexander Macneil (Briscoe & Co. Ltd.), H. B. Gibb (Hawkes Bros. Pty. Ltd.), W. B. Ridgeway, Marshman, James Walker, A. A. Myers, A. W. Jones, J. S. Taylor, Paul, Marschner, Barry (secretary, Myer's), Leonard Cooper, and W. Delbridge.

In expressing his pleasure at their presence, Mr. Black summarised the club's present position, and stated that the year's work of the executive had resulted in the addition of 180 new members and a greatly improved financial outlook. He appreciated the efforts of the committee and staff of the club, and paid a special tribute to the secretary, Mr. J. Dempster, for his able conduct of affairs. He was pleased, he said, to welcome a valued supporter of the club in Mr. Alexander Macneil.

Mr. Macneil remarked that he scarcely knew whether he was present as president of the Victorian Hardware Association or as a member of the

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club. He would speak, however, as both. He recalled that Mr. Black had started his career with the firm of Briscoe & Co., and must have there received something which brought him success in business. It was gratifying to him to hear that the club's finances were on a sound footing. He reminded those present that many years ago a debate was held to decide whether the club was to be purely an assistants' association or a hardware trade association. The inclusion of all sections proved a wise decision, a decision responsible for the interest and support which was being given by those represented round the table. When they decided to ask members to take up club debentures it was anticipated that about £10,000 would be raised. The amount actually obtained by this means was £22,000. The Hardware Club gave, he considered, better value to its members than any similar institution of 900 members. This number could be easily be doubled if each member did his part, and a sinking fund could be provided to extinguish the debt. Incidentally Mr. Macneil mentioned the good work done by the Hardware Relief Fund, which had enabled assistance to be given to many deserving cases.

During the afternoon Mr. Myers, chairman of the finance committee, gave some interesting figures regarding the financial position. He thought this was necessary, as they had heard reckless tales about the club's affairs. So far as the building was concerned, the liabilities amounted to £53,900, a sum which was quite within their power to handle. Last year, with all the disadvantages consequent on removing to new premises, there was a loss of only £1463, much less than had been anticipated. Next year this would be greatly reduced. Taking the past month of July as an example, the actual revenue amounted to £404. The expenses for that month, based on an average taken over twelve months, were £424. If no further progress were made—to place it on the most conservative estimate—the loss for next year would only be £462, as against £1463 for the past twelve months. Those in charge of the club's finances had the most complete confidence in their soundness. The important thing was for members to adopt this attitude of confidence also, and by standing behind the committee.

Mr. James Walker referred to the early days of the club, and gave some amusing recollections of the financial straits experienced. On one occasion there was a difficulty in paying the pianist's fee of a guinea at an entertainment. The pianist called on the treasurer, and refused to leave until the sum was paid, Mr. Walker eventually paying the fee out of his own pocket to get rid of the importunate creditor. He felt pride in the fact that they had a building of their own, and complimented the president, the committee, and officials on the work of the past year, and on the satisfactory way affairs were progressing.

In conclusion, Mr. Black said he thought the club might consider the advisability of holding an annual dinner, when both principals and employees would meet together. This would still further cement the friendly relations existing between the parties in the hardware trade. As an employer he had always found that the cultivation of social amenities in this way was entirely successful, and made for better service.

Annual Meeting.

With Mr. Black in the chair, a meeting of the club was held at the rooms in August, when the thirty-seventh annual report and statement of accounts were presented. The adoption of the financial statement was agreed to on the motion of Mr. E. A. Kearney, seconded by Mr. A. A. Myers.

Members of the executive mentioned that the new club building had been completely paid for, all the money required for this purpose having been obtained. At the commencement of the last financial year the club was losing at the rate of £2000 per annum, while at the present moment the loss was at the rate of only £400 per annum, with every prospect of materially reducing that figure during the current year. The receipts for the month of August were establishing an easy record. Another feature which gave cause for congratulation was a spirit of co-operation which the committee hoped would result in a big influx of new members. With the addition of 100 more, it was explained, the new premises would pay handsomely. The whole of the space available, both shops and sample rooms, had now been let.

Arrangements are being made for the first annual dinner to be given shortly by the club. The date has not yet been fixed, pending the fixture of a time suitable for the Lord Mayor of Melbourne, who, it is expected, will be the guest of the evening.

Thirty-two players are left in the second round of the club's snooker tournament, the last semi-final of which will be fought on September 20. An exhibition game of billiards will be given on September 21, when Mr. Walter Lindrum will meet Mr. G. Sutherland, a club player, and the amateur champion of Victoria.

Long Range Shooting.

Exhaustive experiments have been carried out with the object of demonstrating the exact number of shot pellets in any load which are actually effective during the fraction of a second required for a bird in flight to pass through the path of a shot charge.

Expert shots have long recognised that a high velocity does not of itself guarantee results at a great distance. Excessive velocity is liable to cause unequal distribution, or useless scattering of the pellets. The problem for the cartridge loader is to balance up all the factors, namely, short shot "string," pattern of shot, and velocity. The prime necessity for long and effective shooting is to so control the shot that it shall travel along the line of flight in a compact mass.

The experiments referred to were made possible by the use of a device which is able to measure the string of shot by registering the precise position of each pellet in the air, at varying ranges. It was found that the length of the string was as much as 20 ft. with many loads. Having established this fact, the experts of the Western Cartridge Co., who designed the machine referred to, commenced a series of experiments with the object of controlling the mass of shot in its flight. Success was eventually attained by the use of a progressive burning powder, which made it possible to concentrate as many as 129 pellets within the space of four feet as against a "drawn out" shot string of twenty feet. Whereas for years it was considered that the effective range of a shot gun was 40 or 50 yards, it is now claimed that 15 or 20 yards is added to this distance by the application of the new methods to cartridge loading.

The Western Cartridge Co. are marketing these long distance shells under the name of "Super X," the Australian representatives being Noyes Bros. (Melb.) Pty. Ltd., of Bourke-street, Melbourne. This ammunition is also made and recommended by the company for use with guns of 16, 20, and .410 gauge, as well as with larger bores.

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Commonwealth Tariff Decisions

The following decisions of more or less interest to the hardware trade have been made during August. By way of explanation it should be mentioned that the double number on the left of each entry represents the tariff decision number, while the number to the immediate right is the tariff item, and the date following (8/8/27, and so on) the date on or from which the new decision took or takes effect:—

Iron and Steel—

27/631 The reference to Strip, Steel, Tyne Quality, &c., for use in the manufacture of machines and appliances (agricultural) in Consolidated By-laws, page 103, in By-law No. 71, and T.D. 25/601 are to be cancelled, but any such Steel Strip as was in direct transit to Australia on 8/8/27 may be admitted under Tariff Item 404. (By-law No. 427.) .. 8/8/27

Boards—

27/644 Plywood, coated with a light gauge galvanised sheet steel—
On one side .. .. 291 (M) 15/8/27
On both sides 425
Note.—T.D. 24/813 is to be cancelled.

Electrical Appliances and Materials—

27/651 Eliminators, Battery, for use with Wireless Receiving Sets. 180 (F) 15/8/27
Note.—T.D. 26/559 is to be cancelled.

Iron and Steel—

27/655 Band, Barbed (as a substitute for Barbed Wire). (Substitute Notice No. 7.) 157 11/8/27

Lamps and Lampware—

27/657 Motor Car Lamps—
Dome, when imported fitted into motor car bodies with fixed or movable canopy tops. 359(d) (3) 15/8/27

Lubricators—

27/658 "Delvac," "Detroit," "Intensifore," "Manzel," "Wakefield," and similar types, for all purposes. (By-law No. 438.) 404 26/7/27
Note. — The relative references thereto in Consolidated By-laws, pages 75, 100, and 101, in By-law No. 71, and T.D.'s 23/895, 25/83, 25/284, and 26/727 are to be cancelled.

Machinery, Machines, etc.—

27/659 **Boilers—**
High Pressure Parts of, viz.:—
Cross Boxes
Drum Heads (or Dished Ends)
Mud Drums
Rear Cross Pipes
Staggered Headers
for use in the manufacture or repair of Water Tube Boilers. (By-law No. 439.) 404 14/2/27
Note.—T.D.'s 27/240 and 27/469, and By-laws Nos. 139 and 320 are to be cancelled. Rear Cross Pipes were described in T.D. 27/469 as Outlet Cross Pipe Boxes.

Machinery, Machines, etc.—

27/660 The reference to Drills, steel, hollow, for use in the manufacture of Paper Drilling Machines in Consolidated By-laws, page 101, in By-law No. 71, and T.D. 26/762, are to be cancelled, but any such Drills as were in direct transit to Australia on 15th August, 1927, may be admitted under Tariff Item 404. (By-law No. 440.) .. 15/8/27

Machinery, Machines, etc.—

27/665 Superheaters, High Pressure Parts of, viz.:—
Top and Bottom and Outlet Pipe Boxes—
For use in the manufacture or repair of Superheaters for Water Tube Boilers. (By-law No. 441.) 404 14/2/27
Note.—T.D. 27/245 and By-law No. 140 are to be cancelled.

Machinery, Machines, etc.:—

27/666 Washing Plant, Motor Car, comprising:
Blow Pipe .. .. 208 (a)
Compressor, Air .. .. 176 (f)
Hose .. .. 332 (b)
Kercsene Spray .. .. 375 (b)
Motor .. .. 179 (d) (1)
Tank .. .. 208 (a)
Vacuum Cleaner Attachment . 208 (a) 15/8/27
Note.—The reference to Portable Air Compressor Set, etc., in "Guide," page 191, is to be cancelled.

Pipes and Tubes (Metal)—

27/669 Tubing, Steel, solid drawn, No. 18 gauge (B.G.), for use in the manufacture of Vacuum Cleaner Systems and Pneumatic Tube Systems, under security. (By-laws No. 443.) 404 21/7/27

Screws—

27/671 Rolled Thread, brass plated, for use in the manufacture of Conduit Fittings used in electrical installations, under security. (By-law No. 444.) 404 9/2/26

Hooks—

27/676 Metal, on metal fixtures, for use in the manufacture of Key Wallet. (By-law No. 460.) 404 30/11/26

Machinery, Machines, etc.—

27/678 Balls, Steel, for use in Cylindrical Grinding Machines. 176(c) 22/8/27
Note.—The reference in "Guide," page 183, to Balls, Steel, containing chromium, etc., is to be cancelled.

Electrical Appliances and Materials—

27/699 Electrodes, Welding, Cast Iron .. .. . 208 (a) 29/8/27
Note.—The reference to Electrodes, welding, cast iron, for all purposes, in Consolidated By-laws, page 75, in By-law No. 71, and T.D. 26/357, are to be cancelled; but any such Electrodes as were in direct transit to Australia on 29th August, 1927, may be admitted under Tariff Item 404. (By-law No. 477.)

Electrical Appliances and Materials—

27/702 Telegraph (Wireless) Plant, parts of, viz.:—Small Tin, containing Radio Crystal, Catswhisker, Metal Tweezers, and Cotton Wool Packing—On the whole. 79 29/8/27

Mats—

27/712 Table, of Raffia .. .. 309 (d) 29/8/27

Paints, Colours, Varnishes, etc.—

27/713 Oxide of Iron, in dry colour form, the f.o.b. value of which, at port of shipment, exceeds £15 per ton, for all purposes. (By-law No. 473.) 404 21/2/27
Note.—The reference to Oxide, red, etc., for all purposes, in Consolidated By-laws, page 76, in By-law No. 71, and T.D. 27/119, as amended by T.D. 27/136, are to be cancelled.

Wire—

27/718 Iron and Steel, Annealed, No. 21 gauge (I.S.W.G.) and finer, for use in the manufacture of Woven Wire (under security). (By-law No. 476.) 404 10/2/27
Note.—The reference to Wire, annealed iron and annealed mild steel, etc., for use in the manufacture of Woven Wire, in Consolidated By-laws, page 116, in By-law No. 71, and in "Guide," page 402, is to be cancelled. The note reading "The Woven Wire referred," etc., in "Guide," page 402, is also to be cancelled.

Wire—

27/719 Iron and Steel, Half-oval or Half-round—
The base measurement thereof is to be taken to determine the gauge for Tariff classification purposes. .. ..

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Publications Received

Victorian Hardware Club.

A neat booklet carries the thirty-fourth annual report and statement of accounts of the Victorian Hardware Club. The events of the year are set out in orderly and interesting fashion. Now in possession of their own building in Post Office-place, Melbourne, the officers and committee are hopeful of rendering better service and increasing the membership. It has meant hard work and involves a heavy liability, but the committee are fairly satisfied with the financial position and are facing the future wtih courage and confidence.

Blackman Fans.

Carrying the compliments of the publishers, the Blackman Export Co. Ltd., of 374 Euston-road, London, N.W.1., a booklet has come into our hands describing the Blackman fans for air and gas. Various types are illustrated and full particulars given. Among others is the Keith composite cased fan for the ventilation of mines. These fans with their gears are very strongly constructed. Shutters and guards for several of the fans shown are also listed. The issuing firm are widely known as air and gas engineers.

A Pictorial Report.

The sixty-third annual report of the Wellington Chamber of Commerce as distributed in print is a very interesting publication. Covering as it does the year 1926, the report proper deals with the trade of New Zealand as well as with the doings of the chamber itself, but there is a good deal of added matter, advertising and other, which goes to enhance its value. A section on art paper carries some illustrations beautifully reproduced. The president of the chamber for the current year is Mr. Charles M. Bowden, and the secretary is Mr. Snowdon Fairchild, with offices at 113-15 Custom House Quay, Wellington.

Colour Printing: A Sheet of Tiles.

Swans, Ltd., of 304 Pitt-street, Sydney, have issued a sheet of tile patterns carried by the firm. Wholly got up and designed by the firm's advertising office, the sheet measures 2 ft. 6 in. by 1 ft. 10 in., and as a specimen of commercial colour printing would be hard to beat. Printed on varnished paper, there are 68 illustrations of the different designs, and the colour work is so well done that at a distance one seems to be looking at the original samples. In addition, there is a picture in the actual colours of the firm's model bathroom.

The production is a combination of three colour and line work, and ten operations were required for the printing of the job.

Brassfoundry.

This title covers a hndsome volume issued by James Cartland & Son Ltd., of Birmingham. It deals with builders' cabinet and general brass-foundry, and carries hundreds of illustrations throughout its 182 pages. The issuing company have long been known in this particular line of manufacture and have one of the best plants for the purpose in Great Britain. Their "Cart Land" trade mark with device of a cart between the words appears on their brass butt hinges and other goods. Carrying a foreword from Mr. Charles Y. Hopkins, the managing director, the volume is printed on art paper and is well bound in red.

In Australia the company are represented by Mr. Harold R. Richardson, of 181 Clarence-street, Sydney, and elsewhere; and in New Zealand by Mr. M. Scott-Young, of Bank of New Zealand Chambers, Wellington.

Metals Research Association.

The seventh annual report of the British Non-Ferrous Metals Research Association, recently issued, describes the work carried on by the association during 1926 at a cost of over £25,000. Seeing that the association deals with all the principal non-ferrous metals, including aluminium, copper, lead, zinc, and nickel, it will be seen that a wide field is covered.

The history of engineering shows how closely advance has depended on the improvement of materials and almost every manfacture or handicraft is capable of progress as the result of a fuller knowledge of the materials it uses. Other countries are keenly alive to the value of scientific research and are striving to attain and surpass the British position by work very similar to that carried out by the Research Associations.

The co-operative systems of sharing the costs of industrial research, which is rendered possible by the Research Association Scheme, enables members to secure the full results by individual subscriptions, amounting to only one-hundredth to one-thousandth of their cost. The report gives details of the twenty-seven researches which have occupied more than forty scientific investigators during the past year. The most diverse problems are being studied, such as atmospheric corrosion, the production of sound castings, locomotive fireboxes, lead pipes, materials for high temperature service and electro-deposition.

The director and secretary of the association is Dr. R. S. Hutton, and the headquarters are at Athenæum Chambers, 71 Temple Row, Birmingham.

Motoring Extraordinary.

(By a London correspondent, 71/211.)

The Hon. Mrs. Victor Bruce, who recently returned from a lightning tour of 9000 miles in Europe and Africa, is now proposing to set off again with the object of penetrating ultimately as far beyond the Arctic Circle into Lapland as it is possible to drive a car.

She will start from London on July 8, crossing to Ostend, and her route will take her through Belgium, Holland, Germany and Denmark into Sweden. After paying a visit to Stockholm, Mrs. Bruce, accompanied by her husband and a friend, will start northwards into Lapland and Finland. She will then cross the Arctic Circle and journey forth into the unknown where motor cars have never been.

On the journey as far as the borders of Lapland Mrs. Bruce is carrying out an official survey of the roads in the countries traversed, especially Sweden, on behalf of the Automobile Association. Beyond that point, Mrs. Bruce wishes to explore with the object of gathering material for the book which she will write at the end of the journey.

In contrast with other expeditions of this kind, Mrs. Bruce is making no special provision whatever, and will use the same 6-cylinder A.C. Fabric Saloon as on the African tour.

On the outward journey the coast road will be followed to the head of the Gulf of Bothnia, whence only tracks exist. Eventually it is hoped to reach the shores of the Arctic Ocean—some 200 miles north of the Arctic Circle—and the homeward journey will be carried out by an inland route. In the south, a detour will be made into Norway and a visit paid to Oslo.

Mrs. Bruce anticipates having to do much of her driving in the far north by compass. This does not worry her, but by way of precaution against packs of starving wolves the party will face the wilderness well armed.

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Australasian Metal Markets

All prices are quoted for approved brands, duty and over charges included.
For English prices, see The Month's Cablegrams on page 292

Sydney, September 1, 1927.

In consequence of absence of rain in the country it has been a very quiet month in general trading, and among wholesalers stocks have not gone into distribution at the rate anticipated. Country conditions are unsatisfactory, and until the weather breaks the dry areas cannot expect to have any demand for goods which are purchased at this time of the year. Naturally, the reaction is felt keenly in the city and suburbs, and there is a general opinion expressed that conditions are not as brisk as should be the case for the welfare of commerce generally. Heavy goods have gone out as listed, and few price alterations are noted. Painters' materials have been well stocked, and are in sufficient supply for the business offering. White lead had some attention earlier in the month, but stocks are quoted firm. Turpentine and resin are in full supply, trade being quiet. Shellac sold at list prices, and some interhouse business took place, when surplus stocks went into distribution. Calcutta quotations are lower than during July-August, and cables offering for new season's pack have not resulted in much business. Some parcels of whiting and King's Windsor plaster changed hands in interhouse trade. Jute fabrics have been quiet. The country business is small. Some business written in cornsacks and branbags at advanced prices is reported. Suburban business is spread over a number of lines, not large transactions, but trade is expected to improve during September. Galvanised corrugated sheets, 26 gauge, on indent sold well, and stock sizes went into distribution in fair parcels. Nothing conspicuous is reported in station supplies, and it is felt that stocks are held in sufficient quantities to supply all likely demands unless a general rain eventuates. Building in the metropolitan area is maintained at usual progress, but suburban building is more active, and shows a healthy outlook. Manufacturers are busy, trade conditions being satisfactory. Seasonable supplies amongst metal workers and manufacturers are stated to be regular. Stocks are arriving from overseas without undue delay. Welsh tinplates have received attention, and manufacturers are now well stocked.

Auckland, August 20, 1927.

Business, both retail and wholesale, remains fairly quiet in most departments. The continued wet weather has no tendency to improve conditions, although there appears to be a more optimistic feeling towards the future. While this is the slack period between the seasons the opening of the dairying season should promote a little more activity in the country districts. Orders at present for the most part show careful buying, there being a strong tendency to limit commitments as far as possible. Agricultural implements have been receiving a little better inquiry, and an improvement in the weather conditions should result in better inquiry for all hardware lines. Residential building is still quiet, but an important feature in the city is a number of large structures commenced or contemplated. Since our last report galvanised corrugated iron has been reduced £1 per ton, but even with this reduction sales so far show no improvement. Plain galvanised iron has also shown a similar reduction. Galvanised water pipes have not been receiving so much attention, and prices remain unchanged. Sheet lead is easier at £38/10/-, in sympathy with latest advices. Ingot tin is firmer, and is now quoted at 3/3 per lb. Linseed oil is firm at 3/3 per gallon. White lead remains unchanged at 57/-, but little business is being done at this period of the year. Turpentine is lower at 6/6 per gallon.

Christchurch, August 16, 1927.

The hardware trade in winter is invariably slack, but the present winter is rather slacker than usual. A bulletin issued by the Canterbury Chamber of Commerce states that the prevailing unemployment is due partly to the contraction of industry and partly to the drift to the towns, but for both these facts the farmers' unfavourable position is mainly responsible. The City Council has just received sanction from Parliament for a loan of £25,000 to relieve unemployment, this sum to be spent on remaking and improving city and suburban streets. During the month large numbers of men have been employed regrading the banks of the River Avon in the city area, removing old trees and planting new. The work of reorganising the railway permanent way has been pushed forward, and the new marshalling yards at Middleton will soon be ready for use. A start is to be made almost at once with

NEW ZEALAND PRICES.

	Duty.	Auckland. Aug. 20	C'church Aug. 16	Dunedin. Aug. 24	Wellington Aug. 26
IRON—					
Bar—		£	£	£	£
English ..	Free	21	22/	22/	24
Shoeing ...	,,	23	23/	20/	25
Steel ...	,,	15/10 to 21/-	20	22/	17/6 to 24/
Pig	,,	8	10/6	10/6	9/- to 10/-
Plate ...	,,	21 10/	24/	25/	24/6
Hoop ...	,,	24/, 35/	33/	32/	33
Sheet, Blk.	,,				
to 20-g. ...		23 10/, 24 10/	26/6	26	24/6 to 26 6
22 & 24 g.		25 10/	28/6	28/	26/6
Galv. Cor.—	2/-				
First ...		29	32/ Builders	31/	30
Second ...	,,	28	29/- ,,	29/	29
Local ...	,,	29	...	...	...
Do., Plain	Free	...	...	...	...
24 & 26 g.		31/, 32/	33/, 35/	35, 37, 39	29
Pipe—Galv.	Free	45%	42½% off	42!	40% off
,, Black	,,	50%	47½% off	50% off	50% off
Wire—	,,				
Galvd. ...	,,	16, 18	18/	15/6	17/6 to 13/3
Black ...		16/6	17/	15/6	
Barbed ...	,,	21, 23 10/	24/-	21/	22/ to 23/
Nails ...	2½/-c	20/6	21/-	21 10/ to 23	22
,, N.Z.		20/6	...	...	22
Lead—Pig	Free	32/6	45/	48/	35
,, Sheet	,,	38 10,	47/6	60	42½
,, Shot	10/-	75	80/	80/	75/
Tin—Ingot	Free	3/3	3/4	3/2	3/5
,, Plates	,,	32/6, 48/6	40/	40/	37/6
Zinc—Sheet	,,	7½d. lb.	9d. lb.	8½d.	8½d
Quicksilver	—	...	6/6 lb	...	...
Cement—					
Imported	1/-cwt.	...	22/6 cask	...	...
Local bag	—	5/8	7/-	6/	5/11
Slates ,,	Free	...	...	...	...
P. of Paris ...	,,	27/6	32/6	26/6	27/6
White Lead	10%a.v.				
Best ...	—	57/	62/6	63/	65/ to 66
Second ...	—	56/	...	...	64
Blst. Powder	Free	1/8	1/9	1/7	1/8
Rope— ...	20%				
Manila, Star	—	111/	111/	116/	111/
,, O. ...	—	107/	107/	112/	107/
Flax, N.Z. ...	—	81/, 88/	88/	88/	88/
Cornsacks ...	Free				
44-in. ...	—	...	...	12/11	13/6
46-in. ...	—	...	14/9	12/3	13/9
48-in. ...	—	15/	15/	12/10	14/
Woolpacks ...					
Full ...	Free	5/3	5/3	4/4	5/3
Oils—					
Lins'd. raw	6d.	5/3	N.Z.5/- Eng 5/3	5/3	5/6
Castor ...	Free	5/-	5/6	5/6	5/6
Colza ...	,,	7/9	8/	8/-	7/9
Kerosene ...	,,	14/9	14/9	14/9	14/3
Turpentine	,,	6/6	6/6	6/6	7/6

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the erection of the new Addington railway workshops. Even yet the effects of the English coal strike are being felt in New Zealand, and many sizes of structural steel are in short supply, this seriously affecting building contracts of this description. Another step towards the long-sought grimeless and smokeless tunnel between Lyttelton and Christchurch has now been made and a contract let to the English Electric Co., London, for the supply of six electric locomotives and overhead gear, the cost being approximately £90,000. These locomotives will be of a similar type to those already in use on the Otira tunnel connecting Canterbury and Westland, but will be designed for much higher speeds, being capable of running at 50 miles per hour. The substation, which will be situated at Woolston, will be altogether automatic and will convert the high tension alternating current from Lake Coleridge to a direct current for the operation of the locomotives. Work will be commenced on the line and tunnel very shortly, and it is expected the undertaking will be completed early in 1929. The Canterbury Agricultural and Pastoral Association are holding their annual midwinter show in the King Edward Barracks. As this is being held at the same time as Grand National week the attendance has been a record, and the show is a great success. A large number of the exhibits consist of articles manufactured in the Dominion, and the publicity thus given should materially improve local business. The hardware trade is in a good position as regards stocks of corrugated iron, nails, etc. Fencing materials are plentiful, but sales are not very frequent owing to the farmers economising. Lead prices remain unchanged, and very little business is being done. The advent of spring next month, however, is expected to improve matters all round.

Dunedin, August 24, 1927.

There does not appear to be any improvement in business here yet. Winter seems reluctant to take its departure. The cold and wet weather prevailing up to date has had its effect upon business in general, delaying as it does most outdoor pursuits and building contracts which in turn affects the hardware trade. Unemployment is still in evidence, notwithstanding the many efforts made to mitigate the situation. Street and road improvements are being carried out, while railway extensions also help in a measure to meet the unfortunate necessities of the case. Most liberal responses are being received to the public appeal for assistance to needy families. Many trade employees are giving a liberal weekly contribution towards the fund. Considerable extensions of electric power is advised. In a near country district some 1600 poles and 165 miles of wire have been erected to date, while another's record is 2072 poles and 273 miles of wiring. But for the non-arrival of certain materials several other districts would have been equipped. English lead iron has been reduced to 23/-, and shoeing iron and steel to 22/. Galvanised corrugated iron is also lower at 31/- for the first and 29/- for second. White lead is passing at 63/-, and turpentine is down to 6/6.

Wellington, August 26, 1927.

We are now practically at the end of the winter, which has been a quiet one for business all round. However, prospects are brighter now, and with the start of spring an all-round improvement is anticipated. Orders on hand for delivery at September 1 show distinct improvement. The outlook for the coming season is fairly bright for wool, dairy produce, and meat, and if these prospects are fulfilled we shall have decidedly better trading conditions. The tendency appears to be for moderate reductions in metal prices; galvanised iron, some iron bars, tin, lead, and whitelead are all easier this month, and the reduction in galvanised iron is the third in the last few months. Stocks of metal goods are all satisfactory, with no appearance of any shortages. It is quite possible that bar and plate iron may come down a little before long. Fencing wire has been very quiet, and this may ease a little. Whitelead may also ease a little further, following outside values and the reduction in the metal. Reinforcing steel bars are selling better with the increase of ferro-concrete building, and good supplies are available from the United Kingdom. Corrugated iron has been holding its own fairly for roofing lately, and many still prefer it to tiles. Oils show no change this month, but turpentine has an easier tendency.

Brisbane, August 31, 1927.

August has been a somewhat disappointing month. Trade in Brisbane during Show week was not up to previous years, although the attendance records were slightly in excess. Heavy hardware has been good in the city, but country demands are very slow. Stocks are plentiful and prices unchanged. Bulk lines have only been fair with stocks in full supply, and prices steady. Fencing wires have been moving fairly well, but orders are comparatively small and prices unaltered. Stocks are well ahead of demand. Builders supplies are moving freely, but mostly within the metropolitan area. Owing to the dry weather generally, and the disturbed industrial conditions in the north, the inquiry from these sources has been very limited. Whitelead has eased since last report. There is a deal of painting in hand within the metropolitan area, and business consequently has been on the bright side. Oils are steady with demand good, and prices unchanged. Sanitary plumbing materials and accessories are moving freely as a result of the recent plumbing dispute. Prices are steady and stocks in full supply. Quicksilver has been rising rapidly. Cement has been moving freely, as a large number of brick and cement buildings are in course of erection within the city area running into nearly half a million of money. Woolpacks have eased considerably owing to three shipments coming to hand in quick supply. The demand for August has been strong. Stocks are now well ahead of requirements, and further reductions may be expected in the near future.

Adelaide, September 1, 1927.

Business at this centre during the past month has been but fair, but in this respect it is not only the hardware trade that is experiencing depression, but trade in general has been very restricted. There is a great deal of unemployment in the city, in addition to which labour troubles are threatening in many branches of industry. Of the lines listed all prices are about the same as last month. Sheet lead and lead pipe have been further reduced on account of the London prices for lead being so remarkably low. To-day's quotations from London show ingot lead at £22/8/9 per ton. Ingot tin, on the other hand, continues to hover in the vicinity of £290. Wire prices are about the same. Several lots of old stock of German galvanised wire were sold at £16 (8g.) and £17 (10g.). A parcel of high-tension wire 12½g. x 850 B.S. realised £19 per ton. Turpentine sales have been light at from 5/9 to 6/-, and a parcel of 40 cases "W. and O" brand changed hands at 5/5. A parcel of five chests A.B.T.N. shellac sold at 2/3. Carbide stocks are good, and some small lots of "Lux" have been sold at £31. Sales of bluestone have been about up to the average. Pretty well all stocks of English bluestone have now been cleared up.

Melbourne, September 2, 1927.

During August the hardware trade reported moderate business in most lines. Heavy metals showed a fair turnover, building materials, such as girders, angles, and galvanised iron, moving rather better

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than usual. Steel tees and angles sold in some cases in parcels up to 5 tons, the ruling prices being £3 off list. Sizes noted were ½ x ⅛ angles, 1¼ x 5/16 tees, and girder plates. The quotations for steel girder plates were 10 x ½ in., £18/10/-, while 10 x ⅝ and 12 x ⅝ in lots of 50 brought £18. In black steel sheets several parcels of 10 tons changed hands at £18, and black hoops 1¼ x ⅛ at £3 off list. Flat mild steel sheets also found quite a fair inquiry, 5/16 and ¼ in. selling well at £14/10/-, while assorted parcels in 3½ x ½ and 3½ x ⅝ brought £16. Plain galvanised sheets of English make, not leading brands, were accepted at £28/2/6, 26 gauge, other makes being higher, and in steady demand. An indication of the wire nail market is given by several sales during the month which were effected at £18, less 2½%, in quantities of one ton and over. Cement sold steadily, but supplies are plentiful, and competition keen amongst sellers. One parcel of 500 casks of English cement was observed at 19/6. Australian makes remained steady. Fencing materials did not show the buoyancy which might have been expected, wire netting and fencing wire moving but slowly. Transactions which show the trend of market were three to five-mile quantities of 36 x 4 x 16 at £22/10/-, 42 x 1¼ x 18 at £40/10/, and 42 x 1¼ x 17 at £49. Barbed wire was not in great request, 12 gauge was mostly handled at £22 per ton less 2½%. Other hardware lines which sold well during August were axes, a fair quantity of which were offered. Plumb's brand, in ten case lots, brought 94/- in 4 and 4½ lb. weights, while Kelly's also received attention, although prices were not disclosed. Several parcels were sold to Queensland and New South Wales, the demand in those States exceeding that of Victoria. Shelf goods generally were in fair request only, but the advent of spring is confidently expected to show a revival. Sporting goods are moving well, as might be anticipated, such requisites as tennis and cricketing goods finding quite an active business.

The Month's Cablegrams

Copper, Tin, and Silver. — The following table shows the quotations at the undermentioned dates, compared with those of the corresponding periods last year:—

Date.	Copper. Electrolytic. Per Ton.		Tin. Standard. Per Ton.		Silver. Standard. Per Ounce.	
	1926	1927.	1926.	1927.	1926.	1927
	£	£	£ s. d.	£ s. d.	d.	d.
July 29..	67-67½	61-61½	291 15 0	292 2 6	29 7/16	25⅝
Aug. 3..	67½-67¾	62¾-63¼	297 12 6	297 12 6	29 7/16	25⅝
,, 9..	67-67½	62-62½	298 11 3	296 7 6	28⅝	25
,, 16..	66¾-67½	62½-62¾	290 17 6	293 12 6	28⅝	25⅛
,, 23..	66½-67½	62¾-62½	294 2 6	289 3 9	28⅝	25 7/16
,, 30..	67-67½	62-62½	294 13 9	289 5 0	28½	25¼
Sept. 2..	67-67½	62-62¼	295 12 6	289 2 6	28¾	25 7/16

The stocks of tin in the United Kingdom at the end of July were 14,283 tons, the deliveries for the month 2,644 tons, the quantity on spot 612 tons, and the quantity afloat 1,970 tons.

Lead.—In the London market soft foreign lead on spot has been quoted as follows:—August 3, £24/6/3; August 9, £23/3/9; August 16, £22/16/3; August 23, £22/15/-; August 30, £22/10/-; September 2, £22/7/6.

For the month of July the imports of lead into the United Kingdom were 26,431 tons, including 7,749 tons from Australia. The exports were 1,809 tons.

Spelter.—The spot quotations for spelter, as cabled from London, have run as follows:—August 3, £29/7/6; August 9, £28/7/6; August 16, £27/6/3; August 23, £27/15/-; August 30, £27/18/9; September 2, £27/6/3.

Tallow.—Following are the statistics for August and particulars of the latest auction sales:—

August	Casks.	Date.	Casks Offered	Casks Sold.	Mutton, Med., per cwt.	Beef Med per. cwt
Imports		Aug. 3	Nil			
Deliveries		,, 10	1827	231	31/-	31/-
Stock		,, 17	Nil			
		,, 24	Nil			
		,, 31	1791	1771	32/6	32/6

Travellers

In Victoria.

Mr. J. L. Walters, of J. L. Walters Ltd., 222 Clarence-street, Sydney, returned to Sydney on August 22 after a successful business trip to Melbourne.

In New South Wales.

Mr. Alfred Raphael, of Raphaels Ltd., Perth (W.A.), is in Melbourne at date of our going to press, and will go on to Sydney early in September. His is a business visit.

In South Australia.

Mr. Percy A. Lyttle, of Walter A. Cox Ltd., 195 Clarence-street, Sydney, left for Adelaide by the s.s. "Katoomba" on August 27 and will return to Melbourne about the end of September. His address in both cities will be care of the Commercial Travellers' Club.

Mr. J. L. Garrard, of Wellington, New Zealand, who represents in the Dominion the same group of manufacturers as Carr & Elliott in Australia, reached Sydney on August 16 on a business visit after an absence of approximately twenty years. He also visited Melbourne and Tasmania before returing at the end of August.

From America.

Mr. L. A. Davidson, of Hoskins Iron & Steel Co. Ltd., who has been investigating conditions in the iron and steel trade in America, returning to Sydney by the R.M.S. "Sonoma" on August 4.

Mr. Walter R. Hume, managing director of the Hume Pipe Co. (Australia) Ltd., and of Hume Steel Ltd., has returned to Melbourne from a visit to America, where he inspected the companies' interests in that country.

To and From Europe.

Mr. W. G. South, of W. G. South & Cowan, 352 Kent-street, Sydney, is expected back in November from a business trip to Great Britain and the Continent.

Mr. A. den Hertog, managing director of Philips Lamps (Australasia) Ltd., Sydney, left by the R.M.S. "Sonoma" on August 13 on a visit to Europe via America. He is accompanied by his wife.

Mr. D. E. McLaren, managing director of Newton, McLaren Ltd., mechanical and electrical engineers, returned to Adelaide early in the month from a trip abroad extending over most of a year. In British engineering works he was impressed with the volume of business being handled.

Mr. Arthur N. Johnson, who was for thirteen years associated with Mr. Edward G. Vaughan, of Sydney, left by the s.s. "Esperance Bay" on August 17 on a visit to the United Kingdom and the Continent for the purpose of obtaining agencies on his own account. He expects to return about the end of the year.

From the East.

Sir Aaron T. Danks, of John Danks & Son Pty., Ltd., and president of the Melbourne Hospital, has returned from a visit to the East.

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Australian Market Prices

N.B.—The prices given in these columns are mostly those at which wholesale merchants are prepared to supply ordinary parcels to storekeepers, or other retail dealers. In a few cases we give the quotations of manufacturers or their agents. Preference as well as general duties are shown in the "Duty" column. The first rate is that on goods from the United Kingdom, and the second is the general rate on goods from foreign countries. "F" represents free, and "F 10 %" free from the United Kingdom and 10 % from other countries.

	Duty	Sydney Sept. 1	Melbourne Sept. 3	Adelaide Sept. 1	Brisbane Aug. 31
Pig Iron	20/. 40/	£	£	£	£
British		...	7 5/	7 10/	...
Swedish		...	...	...	...
Lithgow		7 10/	7 5/	..	...
Newcastle		7 10/	7 5/	7 10/	...
Bar and Rod	44/. 120/	23 basis	English 21	21	22 10 basis
Australian		...	18/6	17 10/	...
Mild Steel	44/. 120/				
Bar		19 10/basis	19/ basis	18 10	18
Angles		19 10/	18	19	19
Tees		21	18	20 10	20
Hoops	F., 10%				
Black		20 basis	19 basis	19/6	21/ basis
Galv.		31/6 basis	35	33/6	31 10/
Galv. Corr. 24g.	20/. 60/	30/]	29 10/	28 15/	
Orb 26 g		27	30	30 15/	30 5/
"		28 10/	30		31 10/
Adams Mars		...	...	..	...
Phoenix Cr.		29 15/	30	28 15/	32
Galv. Plain 24g.	20/. 60/	30/]			
Queen's Hd.		29/	31	31 15/	33
Phoenix Cr.		31 5/	33	...	...
Fleur-de-lis		28 10/	...	31 5	33
Other		...	31 10/	...	43/
Sheet	F., 125/				
Black		27 basis	25 basis	26	26
Baldwins		B26, G34 5/ basis	26 10/	...	19
Plate	F., 120/	18 basis	15 basis	15	15 10/
Steel		19/6	21	19	20/-
Girder					
Fencing Wire	F., 120/				
American 8		18 5/	18 5/	..	..
" 10		19 5/	19 5/	..	...
Austr'n 8 Bl.		15 12/6	15	15 10/	15/10
" 10 "		16 12/6	15 10/	16	16/10
Galv. 8		17 17/6	14 10/	17 10/	18
" 10		18 17/6	15 10/	18	19
" 12		20 2/6	18 10/	20	20
Barbed Wire,	68/. 180/				
Amern. 12-g.		24	...	...	25 10/
" 14-g.		25 10/	...	...	26 10/
Austn. 12-g.		24 10/	22 10/	24	25 10/
" 13-g.			23 10/	25	26 10/
" 14-g.		26	24 10/	26 10/	26 10/
Wire Netting	F., 200/				
36 x 1½ x 17	per. ton		36 15/	28	
36 x 1½ x 18			29	50	New List
42 x 1½ x 17			49 10/	..	
42 x 1½ x 17		20%	41 10/	42	
42 x 1½ x 18		off	34	33 10	
36 x 1½ x 17		list	35	...	10 to 15%
36 x 1½ x 18			28		Off List
36 x 2 x 18			22 10/	23	20%
36 x 2 x 19			20	20 15/	Off List
Nails—					
Horshoe	12/. 15/	2½% on list	to 1/1lb.	1/ less 10%	List Price
" Austn.		...	List	...	plus 5%
Wire	5/6. 8/				
" Austn.	or25%.35%	28/6 basis	18/ to 20/	24/6 to 35/	30/- basis
Roofing—	5/6. 8/				
Evenden		74/6 cwt.	65/cwt., 6/6	9/-	11/
Lead-head		...	...	...	44/
Block Tin	Free	293 10/	295	294	3/
Tin Plates,					
28 x 20—	F., 10%				
I.C. Coke	28 x 20	112's 67/6	50/	112's 52/6	27/
I.X. Coke	56s	47/6	70/	...	42/
Pig Lead	Free				
Austn.		30	42	32	37/10
Sheet Lead	10%, 20%	44	50	43/6	53/
Dampcourse		4½" 7/-			
2 lb.		4½" 10 6	48		
3 lb.		10/6 Roll	47		
Lead Pipe—	10%, 20%				
½ to 2in. coils		47/	47 10/	49 10/	62/
Lengths to 5'		49/	52	52	63/
Compo. ½" & up		52/	51	51 15/	75/
Copper—					
Ingots		...	70	78/	10d.
Sheet	25%, 40%	1/6	1/7	1/8	1/8
Brass					
Sheet	25%, 40%	1/3	1/2 to 1/6	1/6	1/6

	Duty	Sydney Sept. 1	Melbourne Sept. 3	Adelaide Sept. 1	Brisbane Aug. 31
Zinc—		£	£	£	£
Sheet 9 to 18g (7 x 3 & 8 x 3)	25,% 40%	60/	62 10/ to 65	67/	65/ cwt.
Perforated	35%, 45%	4/9	7	...	5/6
Spelter	10%, 20%	32	...	54/	...
" Elec....		30/.10/to 37	41 to 42	...	40/
" Brazing	25%, 40%	1/9	1/5	...	1/9
Bolts & Nuts—		¾" ½"	¾ ⅜		
Cuphead 3"		75/, 59/	63/ 47/ 41/		
" 4"	35%, 50%	76/, 57/	61/ 46/ 39/	...	26/3 to 73/
" 5"		70/, 54/	56/ 43/ 37/		
" 6"		65/, 49/	52/ 39/ 35/		
" 6½" to 9"		61/, 47/	49/ 38/ 34/		
" 9½" to 12"		59/, 45/	47/ 36/ 32/		
Tanks, 400-gal.	Free	7	4 15/		5
" 200-gal.		3 5/	2 5/		3
Tubing—	F., 10%				
Black, up to 3"		55 off list	55% off	58⅓off	List 45% off
" 3½ & up	27½		60% off	35 off	.. 5% on
Galv. up to 3"		50 "	45% off	46⅔off	.. 10% off
" 3½ & up	27½	...	tst. List	20 off	Less 10% off
Steam, up to 3"		40 "	37½% off	37½off	.. 5% on
" 3½ & up	27½	...	5% off	20 off	.. 25% off
Wr'ght boil.		...	10% on	...	.. 15% on
Explosives—	F., 5%				5/
Hall's C.C.	10%	1/-	10½d.	1/-	1/1
Curtis's		10½d	10½d.	11½	1/
Chilworth's		10½d.	10½d.	..	1/1
Sporting	15%, 25%	8/6, 4/6	2/9 to 4/6	3/6 to 4/11	3/6 to 5/
Diam. S'less		10/	8/ to 8/6	8/3 to 8/6	5/
Amberite		8/6	7/ to 7/6	6/9 to 7/6	75/
Blast'g Gel.	F. 5%	72/6	74/6	74/6	78/6
Gel. Dyna.	...	65/	66/	66/	71/-
Gelignite	...	56/ to 59/3	56/ to 59/3	54/6 to 58/6	62/ to 65/
Dynamite	...	51/ to 57	51/ to 57/	46/6 to 51/6	...
Detonators	15%, 25%	55/	55 to 60/	60/ to 85/	58/ to 102/
Shot—Chilled	5/, 6/	63/6	61	75/	90/
Australian		61/	56	...	...
Cyanide Pot.	Free	1/4	1/6	...	1/6
Quicksilver	Free	7/6	5/6	5/8	10/-
Sash Weights	35%, 45%	16/	22/6	16/6	18/6
Sheep Shears	F., 10%	62/6	62/6	60/	60
Cement—Impt'd	20%, 30%	25/ cask	21/6	22/6	21/ cask
Aust. (bags)		...	18/	7/4	6/6 bag
Plaster, Imp.	1/6, 2/c	37/6 K.W.	35/	47/6	50/ cask
" Aust.		Pixie 35/-	8/	9/3	18/ bag
Slates (20 x 10)	30%, 40%				
White Lead—	8/, 10/, or				
Imported	25%, 30%	66/	67/6	71/6	69/
Australian		58/	65/	62/	6/3
Zinc White	20%, 30%	...	70 to 100	...	72/. to 86/
Oils—					Colonial 56/.
Linseed (raw)	9d., 1/		Drs.,		
Imported		R5/6	5/6	Drs., 5/9	5/3
Australian		C4/11 D5/11	C., 5/-	Drs., 5/6	4/9
Colza	6d., 8d.				
Burning		...	6/-	...	
Castor—	9d., 1/				
½-cases		C 6/3	6/3	7/	7/9
China	2s., 2/6	...	8/	...	...
Cotton seed	6d., 8d.	..	8/6 to 10/	...	10/
Kero.—C.O.R	Free	...	13/	...	...
Laurel		13/	13/6 to 14/6	13/	13/6
Light of Age		13/	13/6 to 14/6	13/6	13/6
Pennant		13/	13/6 to 14/6	13/	13/6
Turpentine	F.,	5/9	5/9	6/-	6/-
Substitutes	½d., 1d.	3/	18/ per case	...	2/3
Shellac		3/3	2/9	2/8	2/9
Whiting—	6d., 9d.				
English		9/	7/6	9 10/	£12 ton lots
Colonial		4/9	4/6	5/	
Resin, G grade	Free	38/6	35	36/	37/6
Carbide—	80/, 150/				
"I X L"		32/6	27/6	29 5/	29, 7/6
Scandinavian		34/-	30/-	33 10/	33
Canadian			...	...	...
Japanese		...	...	...	..
Bluestone—	100/, 200/				
Macclesfield		37/6	37/6	...	40/
Australian		36(1 cwt c/s)	...	37/6	...
Japanese		...	...		
Stock. Tar, 42 g.	25%, 35%		1/5	...	
Woolpacks—	Free	...		...	...
42 x 11½		...	6/	5/9	...
54 x 11½		4/4	4/6	4/9	5/-
Cornsacks—	Free				
2⅜ lbs. (Oats)		...		...	...
2¼ lbs		11/-	11/6	11/6	11/6
Branbags	Free	9/6	9/-	8/6	9/

Small buyers requiring credit for broken parcels must expect to pay more than prices here quoted.

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Business Register

If you correct them monthly by these pages you will have lists more up-to-date than any Directory. Some leading firms do this.

New South Wales

United Brass Founders, 430 Botany-road, Alexandria, announce that R. G. Powling, F. C. Gill and R. Worthington have retired from the firm. Lionel T. Courtenay is the continuing member.

Firms Registered.

A. Kitch & Sons, furniture and hardware dealers, etc., Percy-street, Wellington; proprietor: Arthur S. Kitch.

A. Heiser & Sons, grocers, ironmongers and crockery dealers, Northumberland-road, Auburn; proprietors: Abraham Reynold and Leon Heiser.

Standard Metal Ware Manufacturing Co., manufacturers of metal ware, Layton-street, Camperdown; proprietors: Samuel Houldsworth and Herbert Rieck.

Company News.

Mangrovite Ltd. made a net profit of £3780 for the half-year to June 30 last. A dividend at the rate of 8 per cent. per annum accounts for £4038, reducing by some £300 the carry forward. The net earnings were somewhat less than in the two previous half-years.

Mort's Dock & Engineering Co. Ltd. made a net profit of £40,342 for the year ended June 30 last, which is about £12,000 better than in either of the two previous years. A dividend at the rate of 5 per cent. per annum absorbs £32,500, and the balance is carried forward. The capital of the company is £650,000, the debenture stock £95,750, and the reserve fund £50,930.

S. & M. Engineers Ltd. have been registered with a capital of £50,000 in £1 shares. Objects: To acquire the business of general engineers, machinery merchants and importers now carried on at Waterloo by Schmidt & Muller Ltd. Subscribers: Andrew C. A. Schmidt, Frederick B. Muller, Ernst G. Muller, Edgar S. Wolfenden, Arthur E. Saxton, Allan J. Brandreth and Charles S. Brandreth. Registered office: Waterloo.

William Adams & Co. Ltd. made a net profit of £16,812 for the year to June 30 last, being about £2400 more than in the previous twelve months. Dividends of 7 per cent. on preference and 5 per cent. on ordinary shares account for £10.750, a sum of £4500 is added to reserves, and a balance of £3805 is carried forward. "The company's engineering works are said to have been fairly well employed during the period under review, and the directors expect this branch of the business to continue profitable given industrial peace, reasonable prosperity, and freedom from further harassing legislation and taxation."

New Zealand

Company News.

Mason, Struthers & Co. Ltd., showed a credit at profit and loss of over £20,386 at the end of the last financial year. A dividend at the rate of 8 per cent. per annum absorbed £8,800, and the balance of £11,586 was carried forward. The paid up capital of the company is £110,000.

Peter Bell Ltd. have been registered with a capital of £2500 in £1 shares. Objects: To carry on the business of retailers of crockery, ironmongery, building material, paints, brushware, leather goods and general incidental. Subscribers: P. Bell and E. R. Knowles.

Queensland

Firms Registered.

Grice, stovemaker, etc., 135 Stanley-street, South Brisbane; proprietor: Joseph C. Grice.

United Spring Co., spring makers, Morse-street, Valley, Brisbane: proprietors: John F. Huberstone and Walter W. Keeble.

H. Austin & Son, general storekeepers, Lilliastreet, Woody Point; proprietors: Harry Austin and Edwin J. G. Austin.

Company News.

Walkers Ltd., of Maryborough, made a net profit of £19.108 for the year ended June 30 last. A dividend at the rate of 10 per cent. per annum absorbs £12,419, and a balance of £4688 is carried forward. In the course of the year, according to the directors' report, thirty locomotives of the C17 class were completed for the State Government. The shops at date of the report were moderately occupied on general work.

Auto-Screw Droppers (Brisbane) Ltd. have been registered with a capital of £15.000 in £1 shares. Objects: To carry on the business of iron founders, mechanical engineers, manufacturers of auto-screw fencing droppers and other droppers, etc., workers and manufacturers of all types of wire, machinery, implements, etc. Subscribers: Frederick C. Macnish, Sidney M. Hardcastle, William Esau, Stanislaus W. Tynan, Henry L. Fraser, Sydney J. Mott, and Vincent D. McCarthy. Reg. office: Balaclava-street, South Brisbane.

South Australia

Firms Registered.

Amos & Son, general engineers and steel window frame makers, 174 Angas-street, Adelaide; proprietor: John Amos.

The Excell Motor Spring Works, spring makers, 145-147 Flinders-street, Adelaide; proprietors: George Alan Ashton and Alice Gustava Ashton.

Morgan & Morgan, drapers and storekeepers and general merchants, Ardrossan, Yorke Peninsula; proprietors: Clarence Bowyer Morgan and Rosina Jane Morgan.

The Cheap Store Company, retail china and glassware and fancy goods dealers, etc., 103a Gouger-street, Adelaide; proprietors: Annie Marie Wentriro and Friedrich Bernhard Schubert.

Company News.

F. L. Moyle Ltd. have been registered with a capital of £10,000 in £1 shares. Objects: To purchase, take over, or otherwise acquire the business of sheet metal workers now carried on under the firm name of F. L. Moyle & Co. at 20 Hanson-street, Adelaide, and to commence and carry on at Adelaide or elsewhere the business of sheet iron workers, motor body builders, motor-car and motor-cycle manufacturers, engineers, woodworkers, builders, importers, exporters and merchants, etc. Subscribers: Thomas James Moyle, Frank Leslie Moyle, Jessie Evelyn Moyle, Winifred Moyle, and Richard David Moyle. Reg. office: 20 Hanson-street, Adelaide.

Tasmania

Firms Registered.

The Kitchen Store, ironmongers, Hobart; proprietors: Robert W. C. Levis and William C. Duke.

Spotswood & Atkinson, storekeepers, Burnie; proprietresses: Fannie V. Spotswood and Christobel Atkinson.

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Company News.

Charles Davis Ltd., of Hobart, had a total to credit of profit and loss account of £12,304 for the year ended June 30 last. A dividend at the rate of 7 per cent. per annum, with State tax, absorbs £10,159, a sum of £50 is added to reserves, and the balance of £2095 is carried forward. Mr. Charles Davis, who presided at the annual meeting, said he was very pleased to bring to shareholders such a good report, as everyone knew the times the State had been passing through, and they now looked forward to an even better year. The two retiring directors, Messrs. Malcolm Kennedy and H. G. Gray, were re-elected.

Victoria

Gardner & Co., engineers, diemakers and machinery manufacturers, Meaden-street, and 111 Ferrars-street, South Melbourne, announce that George Gardner has retired and that the Union Can Co. Pty. Ltd. has become a member of the firm.

Manders & Co., hardware, glass and crockery merchants, Eastern Market, Melbourne, announce that William Lether Fraser and Arthur Sydney Franklin have retired and that Edward Bert Slocomb has become sole member of the firm.

G. Scott & Sons, The Pioneer Engine Works, engineers, etc., 104 Young-street, Fitzroy, announce that George Scott, James Scott and George Scott, jun., have retired, and that Alexander Hector Chance and Stanley Alexander Maguire have become members of the firm.

W. Nicholson, Morrow & Co., manufacturers of agricultural implements. 12 Wilkinson-street, Brunswick, announce that up to September 15, 1926, Emanuel Lyons, Clifford Wade Rothwell, Frank Walter Abbott, Sydney John Hipper, Robert Suffern, Alfred Young, Cornelius Stanislaus O'Leary, Frederick George Boddy, and Ernest Meerman became members of the firm.

Company News.

McPherson's Pty. Ltd. announce that the capital of the company has been increased from £300,000 to £350,000.

Chessell Spring Works Pty. Ltd. announce that the firm-name has been changed to Brunswick Spring Works Pty. Ltd.

Edmund Ashley Pty. Ltd. are now in occupation of the premises at the "top of Elizabeth-street," Melbourne (corner of Victoria and Leicester-streets) lately vacated by Alexander Mair & Co. Pty. Ltd.

F. N. Golgerth Pty. Ltd., brassfounders and finishers, have been registered with a capital of £5000 in £1 shares. Subscribers: Frederick Norman Golgerth and George Frank Wightman. Registered office: 71a Hanover-street, Fitzroy.

Nobel Chemical Finishes (Australasia) Ltd., manufacturers of and dealers in chemicals, dyes, etc., have been registered with a capital of £250,000 in £1 shares. Subscribers: Leslie Charles Morrison, John Turnbull, Harold William Riggall, James Burt Aitken and William Scott Bruce.

Cleveland Engineering Co. Pty. Ltd., have been registered with a capital of £15,000 in £1 shares. Objects: To acquire as a going concern the business carried on at 171-177 Errol-street, North Melbourne, under the name of Cleveland Engineering Co. Subscribers: Charles Albert Noble and Catherine Noble.

Union Iron Foundry Pty. Ltd. have been registered with a capital of £10.000 in £1 shares. Objects: To acquire as a going concern the business carried on at 35 Clarke-street, South Melbourne, under the name of Union Iron Foundry. Subscribers: Ernest Joseph Guest and Vera Isobel Pound. Reg. office: 33 Haig-street, South Melbourne.

D. Robinson Pty. Ltd., ironmongers, hardware merchants, general storekeepers, etc., have been registered with a capital of £15,000 in £5 shares. Objects: To acquire as a going concern the business of D. Robinson, of Ballarat. Subscribers: Donald Robinson, Donald Robinson, jun., Norma McLeod Robinson, and Martha Robinson. Reg. office: Sturt-street, Ballarat.

Cooper & Halling Pty. Ltd., have been registered with a capital of £10,000 in £1 shares. Objects: To acquire as a going concern the business of manufacturers, merchants and manufacturers' agents carried on under the name of Cooper & Halling. Subscribers: William Sutton Coles, Annie Alice Harriette Coles and Albert Stephen William Mannifield. Registered office: 316 Russell-street, Melbourne.

Philips Lamps (Australasia) Ltd., electricians, have been registered with a capital of £50,000 in £1 shares. Directors: Diederik Anton Petrus Gerrit Den Hertog, Arthur James Hanson, George Sydney Warburton, Eustace Cunliffe Holroyde, and Joseph Henry Draper Brearley. Head office: 69 Clarence-street, Sydney, N.S.W. Agent in Victoria: Leighton Lord, Temple Court, Collins-street, Melbourne.

Beulah & District Stores Ltd. have been registered with a capital of £20,000 in £1 shares. Objects: To acquire as a going concern the business of Cust & Son Pty. Ltd., at Beulah. Subscribers: Stanhope Everitt Bullen, Charles Frederick Reynolds, Louis Edward Brennan, Herbert Norman Rudolph, and Stanley Ricardo Walton. William Joseph Collins and James Arthur Rooke are also directors. Reg. office: Phillips-street, Beulah.

Agents and Agencies

A. Buckham & Sons, of 95 York-street, Sydney, have recently been appointed representatives in Australia for Froggat & Tyler Ltd., Bilston, England, manufacturers of tinned and galvanised hollowware.

Carr & Elliott, of 204 Clarence-street, Sydney, have been appointed Australian representatives for the Hinsdale Manufacturing Co., Chicago, Ill., U.S.A., whose speciality is a complete line of socket wrenches.

Mr. Joseph Baumber, who for the past six years was representative in China and Korea for Sanderson Bros. & Newbould Ltd., steel manufacturers, Sheffield, has come to Australia in the interests of his principals and has established an office at Kembla Buildings, Margaret-street, Sydney, whence he will act as direct representative for all the States of the Commonwealth.

W. C. Mayo, of 209a Castlereagh-street, Sydney, has been appointed representative in Australia and New Zealand for Maw & Co. Ltd., Jackfield Iron-Bridge, Shropshire, England, manufacturers of practically every grade of tiles for walls, floors, fireplaces, etc. Samples are now being displayed at headquarters, and it is Mr. Mayo's intention to visit buyers in every town throughout his territory in the near future.

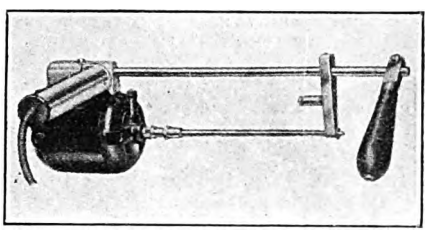
Goodwin & Co., of Birmingham, are represented in Australia by Mr. C. H. Clegg, P.O. Box 1008, Melbourne, Mr. Chas. Pressdee, P.O. Box 687 Brisbane, and Mr. F. C. Terry, P.O. Box J643 Perth, and in New Zealand by Mr. L. A. Lambourne, Poste Restante, Christchurch. They have acquired the sole agency in Australia for C. G. Bonehill Ltd., of Birmingham, who are makers of guns and rifles, and the Australian agents for these will now be the three gentlemen forementioned.

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Machinery

Mica Undercutter.

The Hullhorst Micio Tool Co., of Toledo, Ohio, U.S.A., have put forward the electrically operated portable mica undercutter illustrated. This machine, it is claimed, will undercut any commutator in one-tenth the time required when hack saws or files are used. One of the features of the tool is the use of a small cutter, $\frac{5}{32}$ in. diameter, which facilitates guiding the tool.



This cutter, known as the No. 6, is sturdy and compact in construction and simple in operation. It is claimed that even an inexperienced workman can undercut mica with this machine at a speed of 100 to 200 ft. per hour when undercutting at a depth of $\frac{1}{32}$ in. The width of cut depends on the thickness of the cutter.

The tool is driven by a Westinghouse motor and can be operated from any ordinary light circuit of 110 volts. It is supplied complete with a leather case.

Automatic Oil Burners.

Oil heating provides a solution for many installation problems. More and more fuel oil is coming into use in place of coal and coke, wood or gas. There are a hundred reasons for this. Ease of control of the heat, convenience in storage, and economy, are only a few of the advantages. Amongst the many oil-burning devices on the market is one which is capable of automatic control, and is proving quite successful under Australian conditions. This is known as the Williams "Oil-O-Matic" heating burner, and it may be applied to any form of heating whatever. It is already in operation for industrial purposes such as ovens of all kinds—whether for bread baking or stove enamelling—melting pots, boilers, furnaces, evaporators, cookers, and so on. For use in buildings it serves as a perfect unit for any central heating system, whether residential or commercial.

Conditions are found where ordinary fuels are impracticable. Storage room may be too valuable for coal, tall chimneys may be out of the question, the position may be such as to make it impossible to deliver coal, whereas an oil pipe would be a simple matter. Many such problems are of daily occurrence, and the oil burner is in these cases the obvious solution of the trouble.

The principles of the "Oil-O-Matic" unit are easily grasped. A small but efficient suction pump will draw oil 100 ft. and lift oil 12 ft. through a one-inch supply line and feed the automatic shut-off valve. This valve automatically shuts off the supply of oil to the metering device, when the burner stops working. The makers claim that the metering device is the "heart" of the system. It controls the fuel oil flow, and, once adjusted, it delivers the same measured quantity of oil to the atomising chamber, whether the fuel be heavy or light, thick or thin. In this way fuel oil, gas oil, distillate or kerosene can be burned at will, without readjusting the oil burner with every change of fuel. In an ingenious atomising chamber a measured volume of fuel oil from the metering device, with air, is churned into a frothy foam, slightly compressed, and discharged under a low pressure of from 1½ to 2½ lb. to the nozzle assembly, where atomisation is completed.

In Melbourne Temple Court building, the Royal Automobile Club, and the Victorian Railway offices in Spencer-street are equipped with "Oil-O-Matic" heaters. Some of the most important flour mills have this system applied to heating boilers for wheat conditioning. It is specially useful for this purpose owing to the precise automatic control of the temperature which is so necessary, and so difficult to obtain by other methods.

The representatives for these burners are Automatic Heating Appliances Pty. Ltd., Temple Court, Collins-street, Melbourne.

Cutting Attachment for Welding Blowpipe.

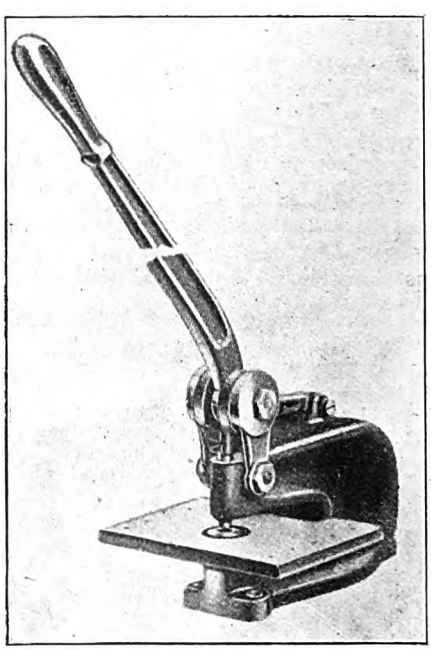
The Oxyweld Acetylene Co., of 30 East 42nd-street, New York, N.Y., U.S.A., are marketing an addition to their line in the C.W. 101 cutting attachment for their W.101 welding blowpipe. Although not intended for continuous operation, the attachment is very convenient and efficient.

The device can be attached to or detached from the welding blowpipe with rapidity and ease. It is fitted with two nozzles and will handle steel and wrought iron up to 1½ in. in thickness.

A table of cutting pressures is supplied in an instruction leaflet furnished with the attachment.

Bench Punch.

The Whitney Metal Tool Co., of Rockford, Ill., U.S.A., are marketing a new bench punch, known as the No. 16.

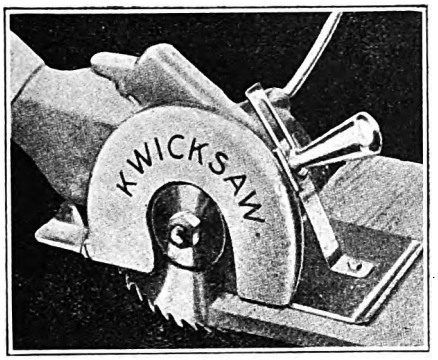


The machine is suitable for all classes of bench duties. It has a capacity for punching a ⅝ in. hole through a ¼ in. plate, and may be furnished with or without a work bench. The machine illustrated has the work-bench.

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Electric Handsaw.

A light electrically-driven hand-saw has been placed on the market by the Porter-Cable Machine Co., of Syracuse, N.Y., U.S.A. It is built to meet the demand for an inexpensive tool, and the saw, travelling at a high speed, is said to leave such a smooth edge that planing is often unnecessary.



Known as the "Kwicksaw," the tool weighs 10 lb. A wide supporting shoe carries the full weight, and thus prevents tipping and assures a square cut. The front edge of the shoe is graduated into a ¼ in. scale, and the edge allows the operator to follow the cutting line. The opposite edge allows the use of a mitre gauge. The shoe can be set to any depth up to 2 in. by loosening the front handle.

This tool is specially adaptable to cutting out sections of flooring without injuring the sleepers, and for removing the projecting ends of sidings, roofings, and floorings. It will withstand weather conditions as most parts are made of aluminium and duralumin. The motor is self-ventilated and the intake is screened, while the exhaust air is discharged inside of the guard, thus blowing the sawdust away from the work and operator. The saw is well guarded.

Standard equipment comprises 10 ft. of cable, an armoured duplex plug, and one 7 in. combination saw, which can be used for both ripping and cross-cutting. Special saws, mitre gauges and grinding attachments can be furnished when required.

New Oil Engine.

A new type of high-speed oil engine for which the inventor, Mr. G. W. Grayson, an Australian engineer, claims an efficiency and economy calculated to very materially affect motor transport, was recently demonstrated at the works of William Adams & Co. Ltd., Alexandria, before members of the New South Wales Chamber of Manufactures and others.

The outstanding advantages of the engine claimed by its inventor are a capacity to run at one-ninth the cost involved in operating an ordinary petrol engine; a high thermal efficiency; a capacity to maintain economy and thermal efficiency at partial loads; ability to work successfully on almost any hydro-carbon fuel that can be made liquid, and the certainty that it will consume all the fuel.

It is noteworthy that the engine exhibited had no magneto or other ignition sytem, no carburettor and no gear-box, and that reversing by the simple pressure of a small lever obviated the number of usual engine troubles. The model exhibited was a 100 h.p. engine and was about two-thirds the size of a petrol engine of the same strength and engaged less space than an ordinary Diesel engine. Thus more powerful engines might be fitted into cars and yet occupy less space. The average fuel consumption of the engine as stated by Mr. Grayson was half a pint per b.h.p. per hour on a fuel costing 5d. per gallon, against an ordinary car engine's consumption of between three-quarter and one pint per b.h.p. per hour on fuel which cost 2/- per gallon. In other words, the inventor calculated a saving of about two and two-thirds of a penny per b.h.p. per hour.

It was stated too that the engine could be adapted to all forms of generating plant, to heavy-duty on 'buses, tractors and lorries, to fast transport on passenger cars, in aeroplanes, and for marine purposes.

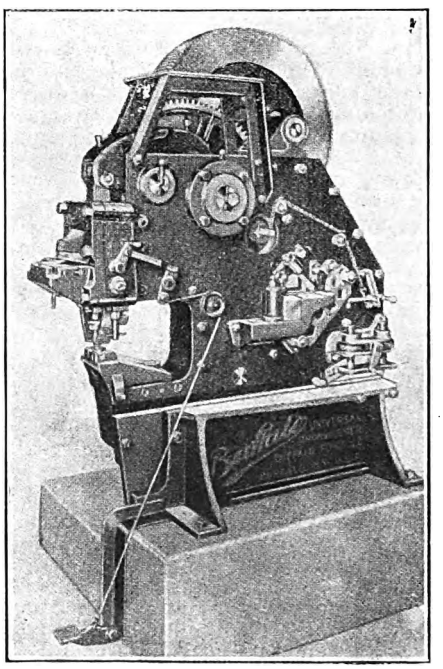
Universal Iron Worker.

The Buffalo Forge Co., of 430 Broadway, Buffalo, N.Y., U.S.A., are marketing a new universal iron worker known as the No. 0, operating on the same principle as other models manufactured by this company.

Simplifications made possible by the smaller capacity have been introduced, and the speed of operation has been increased to 35 strokes per minute. This tool is particularly intended for working light stock used in the fabrication of ceilings, window-frames, filing cabinets, and the like.

An "armour-plate" special rolled-steel frame is used for lightness and strength. The shear blades are made of crucible steel and have four interchangeable cutting edges. Five-piece bar cutter knives are supplied to make sharpening and replacing easier. Knives for special shapes also can be supplied. Optional equipment includes a triple-punching attachment, and a notcher for rolled shapes. This notcher does not interfere with the regular punch, shear, and bar cutter.

The machine will punch holes ⅝ in. diam. by ½ in. deep, or ¾ in. diam. by ⅝ in. deep in channels or I-beams with flanges 3 to 8 in. in depth; or in webs



from 3 to 10 in. wide. It can shear ⅝ in. plate and 4 x ⅜ in. flats; and will trim legs of angles up to 2½ in. deep.

The bar cutter has a capacity for rounds up to 1¼ in. diam., squares up to 1⅛ in.; square angles up to 3 x $\frac{5}{16}$ in.; and mitre angles up to 2 x ¼ in. With special knives, beams and channels up to 5 in. can be cut.

The height of stroke is ¾ in., and the depth of throat 10 in.; suitable equipment is provided to suit every class of work. The weight of the pulley-driven model is 2200 lb., and of the motor-driven model 2300 lb.

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Sporting Goods of All Kinds

Buyers' Notes for Retail Dealers

Sydney

Brandt Bros. Ltd., of 236 Pitt-street, Sydney, to keep pace with the growing popularity of night sport, have paid special attention to lighting devices. The acetylene gas lighting system is said to more closely resemble daylight than any other illuminant, and gives a brilliant light over a wide area. The "Bandsman's" torch is adapted for lighting sporting grounds.

Briscoe & Co. Ltd., of 383-85 Kent-street, Sydney, have added a new department to their activities and now have on hand a large selection of tennis, cricket, and football supplies. They carry tennis racquets by Slazenger, Ayres, Bancroft, Clapshaw & Cleave, and Alexander. There are also lower-priced racquets of Indian and Japanese makes. Tennis balls are on view from all the leading English and American makers, as well as a special Australian ball from the Barnett Glass Rubber Co. Ltd. Racquet covers and presses, grips and tennis nets are to be had in different qualities, as are markers and marking pins.

A wide range of cricket goods is carried, including bats by Stewart-Surridge, Moore, Gunn, Milne, and Clapshaw & Cleave, in men's and boys' sizes. Half-a-dozen different makes of stumps are in stock, full size and boys', made of English ash. Leather match cricket balls from Duke and Wisden, as well as English and Australian-made compo. balls are in strong force.

The display of fishing tackle makes a brave showing. The "Geisha" gut line is fully guaranteed, and cotton lines are supplied in coils of any desired length, mounted with corks, hooks, and sinkers ready for use. American silk trout lines are said to be extra strong and eminently suitable for the purpose. A full range of baits is a feature, almost every imaginable device for luring the fish on to the hook being on hand. Bartleet and Mustad hooks as well as other makes of every required size are in stock.

The selection of shooting requisites is bigger than ever this year, and in addition to guns, rifles, and revolvers the firm have in stock a wide range of gun and rifle covers. The Demoulin gun is a double barrel breech loading weapon with a Greener cross bolt and a spring forend. It also has a half pistol grip and a chamber to take 2½ and 2¾ cases. Other makers include Cashmore, Liege Arms, Hollis, and in rifles Winchester, Remington and Belgian names.

Edwards, Dunlop & Co. Ltd., of 123-25 Clarence-street, Sydney, make a fine display of tennis and cricketing goods as well as of boxing gloves.

Strung with black gut and provided with a black-tipped handle, an aluminium tennis racquet is neat and serviceable in appearance. The handle is striped horizontally black and white. A stout-looking racquet is strung with red and pale gut and has an aluminium frame. The bevelled handle grip is of cork and the end leather tipped. Wood racquets are from well-known makers. E. Kent & Sons supply the "Yorker," strung with red and yellow gut and with red shoulder tips. Dark wood inlaid in the handle grip gives a pleasing finish to the instrument "The Supreme" is of light coloured wood with ribbed handle, and black ornamental streaks together with red and yellow gut and dark red binding are effective. The "S. W. Louat," by F. H. Ayres, is another well-known line. A lower-priced article is the Japanese-made "Clarence," strung with yellow gut and the shoulders blue gut bound. The inside throat is black, and the handle is octagonal, two faces being ribbed. The "Unique" is a well-made racquet with throat wedge of dark wood, and strung with red gut.

Special are the cricket bats from Salmon & Webster, the handles being covered with red rubber. The "Selected Champion" and the "Match" are also stocked, in addition to unbranded lower-grade lines.

Farleigh, Nettheim & Co., of 80 Clarence-street, Sydney, have added cricketing supplies of their own make to their sports department, including wicket keepers' gauntlets, men's and youths' leg guards, balls and scoring books in various sizes and qualities. Wooden and iron golf clubs are also carried, including such makes as "Haylake," and Gibson's "Star." The golf balls stocked by the firm include the "Bee" and "Challenger."

The F.N. rifle, made in Belgium, takes an important place among the guns, now being landed for November orders. The rifle is noted for its safety. It possesses an interchangeable mechanism and safety notch, into which the trigger engages and keeps the cocking piece slightly backward when the bolt is being closed. The No. 107 shotgun weighs 6 lb. and is built to take any standard factory-loaded shell.

Tennis racquets form an important feature of this year's display. These include the "Norwood," "Grace Park," "Kooyong," and "Electra" racquets, all of which are strung with English gut, and are marked at competitive prices.

Boxing gloves are made in all sizes up to 6 and 8 oz., and also for boys. Football cases and bladders are also in variety from juvenile to championship match size, the makes including such brands as "Schools Union," "College," "Club Globite," "Interstate," and the "Champ."

Golf bags are featured including the firm's exclusive "Aeroplane" brand.

W. S. Friend & Co., of 131 York-street, Sydney, are offering a large variety of guns, rifles and ammunition and other shooting requisites. Winchester single shot and repeating rifles are prominent in the stands, and there is also a good showing of Remington .22 repeaters and Browning automatic rifles in models to handle the .22 short cartridges and the .22 long rifle. A feature is made of the new model F.N. rifle, a weapon of high quality and low price. The d.t., b.l. gun made by R. Diamond & Co., is described as a good arm selling at a moderate price. Other makers of shot guns represented are Hollis, Westley Richards, Webley & Scott, Stevens, and Harrington & Richardson, the two last for s.b., b.l. models. The department is well stocked with ammunition for rifles and smooth bores including smokeless varieties.

In fishing tackle buyers have the choice of a wide range of qualities in both thread and gut lines. The well-known "Mikado" and "Geisha" lines are to be had in sizes ranging from fine to heavy. Willis fish hooks as well as the well-known Bartleet make are supplied in bright, japan and rustproof qualities. The array of fishing rods is exceptionally large, and includes qualities suitable for boys and various other grades up to the most expensive and highest quality descriptions.

Tennis players are well catered for, and all requisites are available, such as balls, nets, racquets, and so forth.

Hill, Magill Ltd., of 131-33 York-street, Sydney, are well supplied with "D.A.D." tennis racquets and

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"D.A.D." Special racquets, the latter being strung with best English gut, and having a reinforced frame. The shoulders are bound with red gut, and the handle is leather tipped. A special feature is that the frames are guaranteed, and are not strung with gut until required, thus ensuring new gut for every retailer and user. The "D.A.D." is a lower priced racquet. Both are made to the firm's own order. All the well-known makes of tennis balls are stocked.

The range of fishing tackle gives the buyer an exceptionally wide choice, and the favourite K.B. hooks are available in various sizes. Mustad hooks are also carried.

Footballs and cricketing pads and gloves of Australian manufacture are listed at very low prices.

S. Hoffnung & Co. Ltd., of 163 Pitt-street, Sydney, hold an exceptionally large supply of fishing tackle. The "Justus" casting reel is an Australian-made device for beach fishing. It is ball bearing and may be had with plain, nickel, brass or aluminium back. Made on the check action principle, the reel will hold 150 yards of 1108 gut line. The "Big Tandem," or "Aeroplane" spinner, is bigger than any similar device so far handled, and is suitable for hooking big Murrumbidgee cod. In the Knowles automatic striker the hook is held in position in a slot, and as soon as it is touched by the fish the hook automatically strikes and holds securely. Kennedy's "Irresistible" floating "Cochy-Bondhu" is a new line specially made for trout fishing.

The "Apollo" special tennis racquet has an English-made frame and is strung with good gut. Slazenger's and Kent's racquets are also carried, as are other tennis requisites, such as presses, balls, nets and scoring books.

The firm are featuring the Robert McNab golf stick, made with specially selected shafts, and assorted grips, the irons being hand forged. In golf balls the Super Challenger is said to be an excellent ball which gives good service. Silver King and Dunlop golf balls are also prominently displayed.

The stock of cricket bats includes the Stuart-Surridge as well as other special makes, such as the "Improved Conqueror," "Improved Victor," "Improved Champion," and "Extra Special Champion," all being fitted with rubber handle grips. Duke & Son's "Supreme Driver," "Hero," "Defender," and "King" are features of the display. Youths' cricket bats are made with best willow handles and have three insertions of rubber in the handle, the sizes being 4, 5, and 6. Cricket balls are in fine variety.

The Browning automatic rifle and repeating rifle are to be found in the gun section, as well as single and double automatic guns by English, Belgian, and American makers. Browning revolvers, as well as Colts, Smith & Wessons, and Harrington & Richardson revolvers are stocked together with gun covers and cases of various kinds.

Holdsworth, Macpherson & Co., Ltd., of 252 George-street, Sydney, are making a special feature of the Cochrane stainless golf clubs. The first consignment has been sold out, and another has now arrived. Other clubs are more moderately priced, and include the "Thistle" brand, as well as specimens by makers in Kinghorn, Fifeshire, Scotland. A wide range of golf balls is carried, including the "Black Dot" and the "Black Recess," both made by the English Silvertown Co.

The favourite Stewart-Surridge cricket bats are a prominent feature of a comprehensive assortment of cricketing requisites. The "Jim Lillywhite" Special Selected" is a handsome bat of moderate price.

The tennis racquets carried cover all the well-known brands, the popular Cressy being particularly noticeable. Others bear such names as James, Slazenger, Ayres, Prosser, and Bancroft. Some are strung by the firm. The "Seawood," made in Sydney by Claude Wood & Co., although not long on the market, is gaining in popularity. It is strung with English gut if desired. Many brands of tennis balls are in stock, Slazenger's grooved ball being well in evidence. Others are by Barnet Glass, Wisden, Dunlop, and Ayres.

The "Colonial" croquet mallet is equipped with malacca cane handle, which is very resilient.

The H.20 Belgian-made double-barrel breach-loading hammerless gun is claimed to be exceptionally strong and sells at a low price. The Browning automatic shot gun is hammerless, has an automatic ejector, single trigger, repeater and a greatly reduced coil. Other guns are by Hollis, Cashmore, Westley Richards, and Greener.

John Keep & Sons, Ltd., of 104-08 Sussex-street, Sydney, have supplies of Stevens's single barrel No. 107 shot gun. One of the features of this weapon is that the barrel and lug are in one piece, thus making it impossible for the parts to become loose. The main spring is on the spiral principle, and it is not necessary for safety sake to let the hammer down when the gun is not in use.

The nitro special gun, by the Lefever Arms Co., Inc., Ithaca, N.Y., U.S.A., is noteworthy by reason of the fact that the left barrel is full choke and the right barrel modified choke. The gun has been tested for strength with a very heavy load and is approved by the United States Navy.

The new Ithaca gun, by the Ithaca Gun Co., has been tested for any standard load and has three safety indicators, as well as unbreakable coil springs and a rotary bolt.

Winchester repeating rifles and Browning automatics are also stocked. The firm makes a speciality of U.S. ammunition.

W. Kopsen & Co. Ltd., of 70 Clarence-street, Sydney, are specialising for the coming season in running gear, standing rigging, blocks and tackle for racing yachts, and bunting and special flags for clubs.

The firm have a good stock of their own make of oars, the "Pioneer" brand, made of "mountain ash," being very popular with oarsmen. All kinds of fishing rods are available, and a large supply of fishing hooks is always on hand.

Noyes Bros. (Sydney) Ltd., of 115 Clarence-street, Sydney, have a line new to the firm in Iver Johnson firearms for which they hold the N.S.W. agency. These weapons are less expensive than many makes, and a noteworthy feature is that the barrels are of special steel and are forged into one piece with the lug. The ventilations are of improved construction, and give a maximum relief from heat waves, while the locks are of special design patented by the makers. The sears lock and hold the hammers in cocked position by engaging at the top of the hammers above the hammer pin, a method which is said to enable a quick, easy release or "pull." The Iver Johnson special trap single barrel shot gun has a matted top which prevents glare and increases the shooting accuracy. The stock is full grip pistol, rubber capped.

The Western Ammunition is another agency held by the firm, and the smokeless cartridges made for the .22 rifle are claimed to eliminate all danger of rusting, pitting, or other damage to the bore of the rifle. Cleaning becomes unnecessary as the priming mixture which ignites the powder spreads a protective coating over the interior of the barrel. The cartridges are sold at the same price as ordinary smokeless cartridges.

Previously the firm had carried No. 37 and 38 model .22 Marlin repeating rifles. They have now added model No. 39, a small game and target rifle made with lever action as is the case with the big

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game hunting rifles. The No. 37 has a full magazine that gives 25 shots at one loading.

The L. C. Smith field gun is said to be hard hitting and accurate and to answer the trigger unfailingly. It is an inexpensive weapon.

Smith, Copeland & Co., Ltd., of 33-37 Regent-street, Sydney, are making a special display of tents and camping equipment for sportsmen, tourists and picnickers.

The Aberdeen portable fireplace is a collapsible stand with flaps on three sides. Any one or all of these may be lowered if desired to protect the fire from wind, or they may be kept up and used for the purpose of keeping food warm. A grate at the top and a convenient griller enable meat to be grilled and other dishes to be cooked at the one time.

The feature of a number of camp cooking stoves is that benzine instead of kerosene is used as fuel, and it is claimed that this spirit is not only less costly to burn, but is cleaner, since no smoke is given off and there is a total absence of soot. Another advantage is that it is unnecessary to carry kerosene or methylated spirits when benzine stoves are used.

The "Optimus" two-burner benzine stove comes in a handy-sized iron case, provided with a handle for the easy carrying of the apparatus. A wide-spreading burner, the flames giving off a great heat.

The "Kampkook" is an American-made benzine stove with two burners, giving a large spreading flame of great heat. The flame can be regulated down to a mere flicker.

The No. 3 kitchenette "Kampkook" provides an almost complete range of cooking utensils. A collapsible frying pan is provided, and by means of the oven and other appliances it is possible to fry, boil, or bake a meal, the heat spreader permitting the use of a number of vessels at the one time.

The "Optimil" is also packed in a tin box with a handle, and the sides may be tilted to any desired degree for the purposes of making a wind screen.

The "Optimus" two-burner yacht stove has a frame of heavy galvanised iron, all the other fittings being of brass. Rails are attached to prevent the cooking utensils from sliding with the movements of the boat. A separate oil tank is provided for each burner.

The "Baby Auto Primus" is an interesting and useful little device. Like the "Optimus," it is favoured by yachtsmen, and is fitted in a tin box 3½ in. x 3½ in. x 5 in. A pint of water can be boiled in four minutes. The heat of the hand brings the benzine into the burner for lighting purposes.

Sunshades for beach or lawn have a six feet spread. They are made with green, brown or blue and white stripes. Some are provided with a spear point only, and others have in addition a tilting device, whereby the cover may be adjusted to any desired angle. The covers are washable and in addition a supply of light Japan sail cloth is provided, by means of which a temporary dressing shed may be made.

The firm make single and double edge lawn tennis nets of light and medium cord, the sizes being 42 ft. x 2 ft. 6 in. and 42 ft. x 3 ft. 6 in. single and double top. All have bands of duck, with headlines of flexible steel wire. Lowe's tennis winder, the screws of which do not rust or twist the net, and tennis racquet covers of the firm's own make are shown.

S. Walder, Ltd., of 340-42 Pitt-street, Sydney, have large stocks of their own make "Acme" brand tennis nets, hand made and steam-tarred. The A heavy club and B medium hemp are made with flexible wire headlines. The C medium hemp has a double top and headline of flexible wire, as is that of the D medium hemp, which has single top.

Sets of quoit ropes are tautly laid and wormed. Wooden pegs are also provided with the quoits.

Melbourne

Briscoe & Co. Ltd., of 391 Little Collins-street, Melbourne, have for the new season various grades of fishing rods for all uses, and of different prices. The Winchester makes in telescopic steel rods are now well established on the market. They are of moderate price, always reliable in quality and attractively finished. A selection of these with the other fishing tackle, lines, artificial baits, and sinkers makes a useful addition to the stocks of the hardware store. The firm carry very complete supplies of aeroplane spinners, minnows, spoon baits, Devons, and perch spinners, all of which sell well. English and American fishing lines of all kinds, Australian lines in cotton, hemp, and linen, and silk lines enamelled and waterproofed are all available. Gut of all grades includes good sound material of Japanese make, at a low price, which comes both single and twisted. Fish hooks of best-known English as well as Mustad's brands are either plain or to gut.

For the shooting season it is advisable now to look to the ammunition stocks. Shot gun cartridges are stocked in every make usually demanded by the hunter. All the Australian loadings are constantly in request, and ample supplies enable orders to be promptly despatched. For buyers who prefer Remington cartridges this brand is held in both American and English loadings. All of these are quite reliable in every way. Amongst a selection of firearms are Winchester rifles of 22, 38, and 44 calibre, while shot guns in 12 gauge are regularly imported in B.S.A., Hollis, and Cashmore, also Dimoulin and Bayard models. This covers practically all grades likely to be called for. The latter are of excellent quality at reasonable figures. Hollis and Cashmore guns may also be had in 410 bore, both single and double barrelled.

Downs & Son Pty. Ltd., of Tinning-street, Brunswick, well known as manufacturers of cordage, are now supplying cricket and lawn tennis nets, made entirely from their own cord. The range of tennis nets offers the buyer a grade suited to every need. For the private court, where the wear is not so severe, a serviceable article (No. 10) meets the demand. This net is 42 ft. x 2 ft., and is of hemp twine, with white canvas band strainer and galvanised wire cord. Two medium-priced nets are supplied also, and still another two patterns, 13F and 14F, are made for heavy duty. The latter are of laid hemp cord, with strainer of flexible steel wire cord. Either of these should be able to stand up to any amount of hard usage, and also bear reconditioning over and over during their lifetime. Any of these nets can be supplied in 2 ft. 6 in., 3 ft., or 3 ft. 6 in. depth if required. All are made of long line fibre, steam tarred, and any special net can be made to order.

"Samson" brand fishing lines are made at the firm's factory of every material in use. Flax, hemp, and cotton lines are put up in coils and hanks, while for retail sale the carded lines are found useful. Specially hard cord, of navy quality is produced for the professional fisherman, covering white cable cotton fishing lines, flathead lines, coloured or white, and snapper lines. Linen rod and trolling lines are in tan or green—either on cards or spools.

Hawkes Bros. Pty. Ltd., of Geelong and Melbourne, are offering a full range of sporting ammunition. Leading makes are stocked in shot gun cartridges, including the "Diane" smokeless. Of Belgian origin, this brand is loaded with "Clermonite" powder, and is recommended as of excellent quality and strength. Winchester and Bayard rifles are stocked, and Cashmore, Hollis, Victor, and other makes of guns.

In fishing tackle, rods, lines, and all necessary accessories are handled. Fresh supplies have been

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received of green, white, and tan cotton fishing lines, also Mustad's fish hooks of all sizes and kinds.

As agents for A. G. Spalding & Bros. (Aust.) Pty. Ltd., they are able to supply all the sporting goods bearing that brand. Among the golf requisites the "New Kroflite" wood clubs enjoy much popularity. In this model are "Driver," "Brassie" and "Baffy." In addition to the "Kroflite" irons, which are kept in all numbers, cheaper brands are available to suit users. The Spalding makes of golf balls include their "Kroflite," "Championship Mesh," and "Sunshine Mesh." From other manufacturers come the "Maxfli," and "Silver King" golf balls. A variety of golf bags is displayed: other accessories are peg-trees, supplied in compact boxes of 24, and golf ball enamel.

In tennis racquets the Spalding series is prominent. The designs range from the "Topflite," which is the highest grade, down to the "Greenwood," a good racquet for beginners. Several excellent racquets amongst the first quality types are the "Krobat" and "Peerless," while a reliable pattern, made to the firm's own specification, bears the name of "Corio." The "Geelong" is considered of good value in the cheaper grade, and Prosser's, Slazenger's, and others are also represented. New stocks of all leading brands of tennis balls are constantly coming to hand. A new ball which has recently been placed in production by Spaldings is known as the "Latexeam." Lately to hand are English tennis nets, in both single and double top. Other tennis materials include waterproof racquet covers and patent screw racquet presses.

Amongst the cricket requisites for the coming season which should be mentioned is Spalding's "W. H. Ponsford" autograph bat. This is designed as a specially high grade match bat. Balls, matting, nets, and all the various accessories of the game are also stocked.

J. S. Kidd & Co. Pty. Ltd., of 410-12 Lonsdale-street, Melbourne, are already prepared for the sporting season with ample supplies of ammunition and fishing tackle.

In cartridges all the principal brands are carried, including Nobel's and Eley's products, also Remington and Winchester. The large business done in 12 gauge shot gun ammunition has led the firm to specially stock and recommend Nobel's "Reliance" cartridges in either black or smokeless powder, made to their own order. The smokeless are loaded with chilled, and the black type with patent hardened shot. The dimensions of the cases are 2½ in. x $\frac{13}{16}$ in. Other classes of ammunition are Eley's "Grand Prix" smokeless in 12, 16, or 20 gauge; Nobel's "Nile" smokeless 12 gauge Ballistite; Eley's gastight; Nobel's "Primrose" smokeless, and Kynoch's 410 gauge with 2 in. cases. Remington's are obtainable in "Dupont's" smokeless, American, loading, 12 gauge x 2½ in.; "Nitro Club," "Arrow," and "Economy." Winchester metallic cartridges are in all the required gauges.

A good selection of rifles and guns include Winchester, Stevens, Bayard, H. & R., and several guns are handled which, while selling at a low price, are quite reliable.

The fishing tackle section has been extended, and stocks enlarged. English and American rods are in a fine range, as well as several Japanese rods, of good quality bamboo meet the inquiry for a low-priced article of strong make. An assortment of all fishing tackle includes Swedish and English hooks, loose and gutted, artificial baits, sinkers, and other details. Fishing lines are too many to enumerate. The selection is large, and efforts are made to see that no possible type of line is unstocked.

Levy Bros. Successors Pty. Ltd., of 271 Lonsdale-street, Melbourne, have already received supplies of sporting goods for the new season. They find tennis and golfing requisites meeting with increased demand from year to year.

In the case of tennis, players would appear to be added in considerable numbers, as it is necessary to carry larger stocks to cope with the daily orders from all parts of the State. Racquets are in request at the moment, and in the moderately priced goods an extensive choice has to be offered. Prosser's racquets present a satisfactory range, meeting the need for a reliable article at a figure within reach of the average player. In addition to the high-grade "Phenomenon" and several others of that type, there is the middle-priced "Challenge," which has become popular with many users, while other lower marked racquets are available. Another good selection comes from the Atlas people, makers of such lines as the "Doric," "Pastime," and "Vantage." A special line to suit many of smaller means is well made and strung and sells at about 20/-. Many of the above are of English stringing, to meet the wishes of buyers who prefer it. In tennis balls, again, a wide assortment of makes and qualities is displayed. Spalding's, Dunlop, Barnet Glass, and many other brands may be found here. The retailer will find several excellent makes for the younger generation with light pockets.

Cricketing materials also are extensively stocked. The better class of bats, favoured by most players, include autographed patterns such as the "F. E. Wooley," and "J. Hobbs." Both are classed according to grade. Prosser, Bussey, and other manufacturers are represented in this section. In the boys' models a fine list of bats and other requisites are offered from factories which pay much attention to meeting the juvenile demand. It is now possible to sell a well-made and sound class of bats and stumps at a price which a few years ago would have been difficult to find. Cricket balls are too numerous to record in detail. There is an ample selection, and here again are several for practice games and for the youngsters which are extremely low priced. One example is the "Sorbo," and others of composition material are also attractive.

Every description of golf clubs and balls are regularly stocked. As indicated above, the game is growing in popularity, and it is necessary to prepare for a big demand, a demand which is still large throughout the summer months.

In accessories for the different games there are tennis and cricket nets, wickets, pads, gloves, golf bags and racquet presses.

Fishing tackle is exhibited in the firm's showrooms, and buyers are already making selections for the season. It is the custom to maintain full supplies of all rods, from the cheapest to the best obtainable, and most retail stores could with advantage keep a corner of their premises for this material. Artificial baits, sinkers, hooks, and lines all find a steady sale in many localities throughout the State.

Mr. W. C. Oxley, of 295 Beaconsfield-parade, Middle Park, is a manufacturer of nets of all kinds, and stocks every description of fishing tackle. A selection of rods is offered from the plainest type costing a few shillings to the highest grade greenheart with fittings of the best quality, or the special split cane trout variety.

In addition the several parts and fittings may be had separately. Greenheart and lancewood, rounded and tapered, in the rough, or seasoned greenheart in squares are available, together with ferrules of any material, reels and fittings, snake rings, and similar accessories. Amongst the reels are a number of useful lines at a reasonable figure, both of wood and metal, and many imported reels of bronze or brass.

Included in the tackle section is a large assortment of silk fishing lines; Martin's "Kingfisher" brand, in "Saltene" enamelled and oil silk, also "Shasta" and "Windham" makes. Good value is

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obtainable in Japanese gut lines, which have sold well in the past few years. Other brands of proved quality are the "Erin" braided linen, "Crimson Rambler" in braided cotton, and all sizes in Sydney thread, white cotton, Italian hemp, and linen snapper lines. Complete stocks of all kinds of hooks and artificial baits, flies, gut casts and traces, floats and sinkers are always on hand.

In addition to all kinds of fishing nets, many nets for special purposes are regularly made, such as rabbit nets, tarred pig nets, shrimp nets, and similar goods. For sporting use there are tennis nets, single or double top of various qualities. Club nets are made extra strong, and are fitted with heavy and durable canvas bands and flexible wire cord. Special patterns are also available for cricket, lacrosse, and golf practice. This maker is the only supplier of the patent wire centre rope quoits, which are in various sizes, and include those for use on shipboard.

George Russell Pty. Ltd., of 452 Flinders-street, Melbourne, carry stocks of Winchester rifles in the popular bores, and a number of reputable brands of shot guns. The latter include both single and double-barrelled patterns in Leonard Mills and Bayard makes. All the principal British and American cartridges are regularly stocked. The well-known "Grand Prix" in Eley's make, and the firm's own "Empire" ammunition is supplied in all the loadings required, and for those partial to Remington cartridges this brand can be obtained in either shot gun or rifle gauges.

Other sporting goods includes every class of fishing line, English and Swedish makes in hooks, and a complete selection of artificial baits and sinkers.

A. G. Spalding & Bros. (Australasia) Pty. Ltd., of Sunshine, Victoria, advise an improvement in the construction of the "Top-Flite" tennis racquet, which is their highest grade match pattern. The addition of a reinforcement in the centre of the "throat" of the racquet has been adopted, after tests, as increasing the speed by the fraction of a second.

Since Spaldings commenced their operations in Australia under the management of Mr. G. L. Patterson, the organisation has been extended throughout the Commonwealth, and elaborate arrangements have been made to give service and guarantees to every Sports Depot which is authorised to carry their lines.

During 1926 some 60,000 tennis racquets were sold in Australia by Spaldings, and some interesting information is given in this connection. Per head of population, Australia is said to be the largest buyer of tennis racquets in the world. To maintain the supply of a perfectly uniform model, each component part of the racquet is weighed to ensure proper balance when assembled, and the average type of racquet passes through eighty-seven operations and twelve inspection stations. Each dimension of a frame is machined to a precise pre-determined measurement, and is checked with a "go" and a "no go" gauge. Any frame not within the limits is rejected.

The production of tennis balls is an important side of the firm's activities. As the first makers of the improved modern type two-piece stitchless and plugless ball their strong advocacy of its use was to be expected. This confidence has been vindicated in that the lawn tennis associations of Great Britain, France, Canada, and America have selected these stitchless balls for championship matches. The International Federation lays down the standard of deformation for tennis balls as follows:—"A deformation of not less than .290 of an inch and not more than .315 of an inch when subjected to a pressure of 18 lb. when applied at a temperature of 68 degrees Fahr." The maintenance of such a standard necessitates accurate appliances both for manufacture and for testing. The air filling is done automatically with the sealing of the ball as a whole, while the testing of compression is carried out on a special machine.

In the golf department, again, every requisite for the game is manufactured or supplied. The making of golf clubs and balls is carried on with just the same thoroughness and precision as is the tennis material. In "Spalding News," the journal issued by the concern, interesting details are from time to time given on the balance and weight of clubs, the features to be considered in their purchase and use as well as methods of construction. In the retail store these details should greatly assist the salesman in dealing with users.

A visit to the factory of M. P. Wragg & Co. Pty. Ltd., who are now large manufacturers of fishing tackle and accessories, is full of interest. Situated at Gardenvale, one is scarcely prepared to find an important industry in the midst of one of Melbourne's most favoured residential suburbs. The principals live close by, and the entire management and conduct of the business is personally handled by them.

Mr. Wragg sen., has had some forty years' experience in the tackle trade, and probably no house in the Commonwealth has a more intimate knowledge of the requirements of their particular clients. Each different locality throughout Australia and New Zealand has its own idiosyncrasies so far as fishing is concerned, and a class of tackle suited to one place may be quite unsuited to another. It is the special acquaintance with these individual needs which has been a leading factor in the development of the firm's operations.

It is not yet practicable to manufacture all fishing rods in Australia. A world market is necessary to enable a maker to compete, for example, with some American suppliers of rods, of which excellent qualities may be obtained at surprisingly low cost. Quite a large range of materials, however, is turned out. These include fishing lines of many kinds, metal baits of all types, phantoms, Devons, spinners, frogs, porcelain end rings, and every description of hooks to gut, gut traces and casts. These are all produced under personal supervision.

Several processes are involved in the making of metal baits. In addition to the actual sheet metal stamping, which is performed on the power press, the detail work, such as nickelling, decorating in various colours, and generally fashioning in the semblance of minnows, whitebait and other tempting small fry must be accurately done. These baits are now mounted on perforated cards for the convenience of the retailer, enabling him to separate one from the card as required while the others remain attractively displayed. Among this class of bait phantoms, Devons, perch spinners, and spoon baits are said to be constant sellers, while the aeroplane and tandem spinners, now so familiar to the trade everywhere, have a phenomenal vogue. Every possible shape of sinker is made, and floats in a large range of patterns and sizes. Fishing lines of various materials are made on automatic machines, and may be had on cards, or in coils or hanks. In all these goods ample stocks are always maintained, the plant working throughout the year to ensure full supplies during the season. Every atricle is marketed under the trade mark "Alpha."

It is not possible to enumerate the many patterns and styles of rods and other gear which are offered. Every need is catered for, and many rods recently landed from America are, as above stated, of exceptional value. Rods may be seen from the type used by the small boy in the homestead creek through every grade to the special greenheart such as Zane Grey handled in New Zealand amongst the great swordfish. The same applies to reels, which are here in every class and for every purpose, and to hooks, gut, and other accessories. Mention should be made of fly nets or hat veils, which are supplied in any quantity.

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Electrical Section

Notes from Melbourne

(By F.M.B., 1/213.)

Early in September the All-Electrical Exhibition takes place. August has seen over sixty electrical houses preparing for this event. First among these displays will be the Electricity Commission model farm, the ideal home for the average man, and the ideal home for the man of better means. The Post Office and Fire Brigades will have exhibits of telephones, telegraph and fire alarms, while the Railways Department will show the chassis of an electric railway carriage. One firm will have the wax figure of a lady, which can be presented in many different shades of light. A competition will probably be held to see which members of the public can make the best combination of colouring. Another pleasing display will be the electric fountain, which will also have countless blendings of colour.

Private firms will show practically all the lines they handle. Such appliances as fans, kettles, radiators, cookers, grillers, toasters and vacuum cleaners, will be shown, but probably most space will be given to the larger models of appliances, as washing machines, dish washers, stoves, ranges and refrigerators. Whatever is shown will certainly be of the latest design, and those anxious to obtain knowledge of electrical appliances would be well advised to visit the exhibition. It will remain open for three weeks.

The Melbourne Electric Supply Co. Ltd. have decided to introduce the two-part tariff as a method of charging for current, as from September 1. This method has been used by the State Electricity Commission for some time in Gippsland, the Western District, and certain suburbs of Melbourne. While not resulting in immediate reduction of the smaller consumer's bills, it allows for a greater use of electricity at a comparatively small charge. It should help to further sales of household appliances.

Electrical appliances generally are good summer sellers, for they lighten the housewife's work. With an early spring predicted, the big advertisement of the Exhibition and reduced charges for current an active demand should be experienced for such articles as fans and refrigerators.

Notes from New Zealand

(Specially Contributed.)

A loan of £10,000 to the Otago Central Power Board has been authorised for elective works.

Waitemata Power Board has adopted a revised tariff for domestic electric supply, the results of which will be watched with considerable interest by power boards.

Napier Borough Council is considering the installation of electric power to replace suction gas and steam plants in connection with pumping for various public services.

North Canterbury Power Board has decided to take a poll on a proposal to raise £160,000 for purchasing existing lines, for additional construction and equipment and for advances to consumers.

The following loans have been authorised for electrical works:—Wairarapa Power Board, for electric works in the Wangaehu special rating area, £2000; and for electric works in the Weraiti special rating area, £500.

Thames Valley Power Board states that the total number of consumers connected is now 6503, which includes the boroughs of Thames and Te Aroha. There are in operation 1080 water-heaters, 189 ranges, 1907 farm motors, of which 1633 are 2 h.p. milking motors.

A deputation recently placed before the Auckland Power Board a request that electric supply be extended to the Clevedon district, the only rural district in the board's area. The chairman of the board assured the deputation that the request would receive careful consideration.

Bay of Plenty Power Board has received good orders from the residents of the Waimana district for the installation of electrical equipment. The guarantee required has been greatly exceeded and the contracts signed up to date guarantee £90 per mile.

Franklin Power Board has decided to apply to the Local Bodies' Loan Board for power to borrow £35,000 to reticulate the Onewhero, Pukekawa and Port Waikato ridings of Raglan county, which previously comprised the board's outer area, but have now been included within the inner area.

Wairarapa Power Board has decided to grant a 10 per cent. rebate in the case of 3-phase motors exceeding 4-h.p., when such motors are of "no-lag" construction and are run regularly during the month, or when other appliances are installed which ensure that the power factor of the installations will not fall below unity.

A resolution requesting the Minister of Customs to approve of the importation free of duty of electrical appliances and parts thereof that are not manufactured in New Zealand, was passed at the fifth annual conference of delegates of the Electric Power Board's Association, held in Wellington during July.

Taranaki Power Board reports that the number of consumers now totals 1275, while the maximum demand has reached 744 k.w. The increase in consumption of power due to new consumers and longer lighting hours has balanced the drop in output usually following the end of the milking season.

Nelson City Council has been notified by the Waimea County Council that the latter body is prepared to raise a loan for supplying the residents of Wakapuaka with electricity conditionally upon the city council undertaking to erect and maintain the lines, supply the current and undertake collection of all monies without cost to the county council.

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Christchurch Municipal Electricity Department's annual report, in dealing with the operations of the Trading Department, states that there has been competition, keen to an abnormal degree, in the electrical wiring business during the year. The show room has experienced increased sales, particularly in cookers and water heaters, and its activities have recently been further extended by the agency for the Hoover sweeper, with which good business has already been done. Demonstrations are now given.

Manawatu-Oroua Power Board reports that the 11,000 volt line to serve Terrace-road, Kimbolton, has been finished and supply given to three consumers, including three ranges, three water-heaters and one milking motor. The extension north of Apiti is now being erected, and the long span across the Oroua River is completed. The extensions at Spur-road Newbury, Henaghan's Line and Whakaronga have been completed, and the extension down Riverbed-road to Tangimoana will be put in hand next.

Waitomo Power Board reports that all the consumers in Te Kuiti have been changed over from direct current to alternating current supply. The total number of consumers is now:—Te Kuiti, 692; Otorohanga, 151; country districts, 197. These connections include:—Motors, 102; ranges, 31; water-heaters, 91; and pumps, 3.

The demand for power for milking motors and house lighting in the country is steadily growing, and work in hand by the board includes about 20 milking motors and the lighting of some 30 more residences.

Golden Bay Power Board, after consideration of a report presented by Climie & Son, consulting engineers, who have investigated six sources of hydro-electric power in the district, has decided to proceed with the Campbell's scheme, which was dealt with by the report.

A 300 h.p. turbine will be installed, to run which there will be sufficient water during the greater part of the year. In a dry season the power will probably drop to 180 h.p., which it is considered will meet the requirements of the district for a number of years.

Napier Borough Council has adopted the following scale of charges for domestic electric supply:—Net monthly charge of 6d. per unit for the number of lighting units set out in the schedule following: 3d. per unit for the next 20 units, and 1½d. for all over that number:—Five rooms and under, 6 units per month; 6 and 7 rooms, 7 units per month; 8 and 9 rooms, 10 units per month; 10 rooms and over, 11 units per month.

Hot-water service: (a) If a change over switch operating with two or more lights in living room is provided, the supply will not be metered, and will be charged at 1/8 per month per 100 watts installed. (b) Where no change-over switch is provided the rate is to be 2/- per month per 100 watts installed.

The Railways Department has placed an order with Cory-Wright & Salmon, of Wellington, for six electric locomotives for use on the Christchurch-Lyttelton line, the electrification of which will shortly be put in hand. The locomotives will be manufactured by the English Electric Co. Ltd., of London, and will be generally of the type in use at present on the Otira tunnel section, the electrification of which was carried out by the same company. They will be constructed, however, for working at a much higher speed, and while being capable of light running at fifty miles per hour, will have to haul the southern express over the Christchurch-Lyttleton section and also deal with goods trains up to 600 tons in weight.

At the annual meeting of the Tauranga Power Board held recently Mr. T. Lochhead, the chairman, dealing with the first full year, was able to report twice the number of consumers and over three times the consumption of energy that was estimated to be required within three years.

The board had erected 263 miles of transmission and distribution lines, also 154 transformers with a total capacity of 2071 kv.a. For general lighting, heating and power at the end of the previous year there were 469 consumers. During the last year another 269 were connected up, making a total at March 31 of 738 consumers, comprising house and shed lighting, ranges, grillers, etc., and hot water services in 55 houses and 118 milking sheds, also 338 motors of various sizes operating mills, milking machines, water pumps, etc., making the present connected load 2042 kw.

To encourage householders to instal ranges, grillers, radiators, and other electrical equipment, Christchurch City Council has decided to extend the system of selling such appliances on deferred payments. Hitherto the system has applied only to the larger types of electrical apparatus and to owners of houses where there was a sufficient margin above mortgages.

It is now to be made available to the general public. The payments for ranges may extend over three years; for grillers over two years; and for radiators over six months, or one year. The purchaser of a range costing £25 pays a deposit of £5, and a monthly payment of £1/15/4 for 12 months, of 18/2 for 24 months, and of 12/6 for 36 months. Grillers may be purchased on deposits of £2 or £1, the monthly payments ranging from 23/- to 6/3 over a 12 months' period, or from 11/10 to 4/2 for a 24 months' period. Radiators may be purchased on deposits from £1 to 5/- with monthly payments ranging from 15/3 to 6/9 over a six months' period, or from 8/- to 3/6 for a 12 months' period.

Open Display Tables.

The other day we called on a hardware man who does a very extensive business, a great deal of which is credited to the fact that he uses open display tables. It had been particularly busy and the tables were getting bare in spots. Some of the boxes contained one piece only and these boxes evidently were being neglected by the customers. There seems to be a sort of reluctance on the part of shoppers to pick up the last piece of merchandise like that. They like to choose from a few at least. Watch a buyer culling over the tables. He will take the item that he imagines is a shade nearer perfect than the others. This matter has been scientifically studied and it has been found that where less than three items are shown in an open display table, the customer will not buy. Keep the open display table well stocked up and it will show you a better total on your cash register.—"Hardware Age."

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Publications Received

"Crown" Stoves.

Among Australian makers of heating and cooking apparatus are the Crown Stove and Foundry Co., of Woolloongabba, Brisbane. An advertising novelty of which we have received a copy is a card bearing part of the head of a cook with a morsel of thin chain to complete the outline. The problem is to push or shake the chain until a more or less satisfactory nose and lips and chin are formed. With such a fluid line any number of portraits are possible—grave or gay, strong or weak—and for children especially the task is full of interest. "They made their way by the way they're made" is how the issuing company speak of their handiwork, rather a neat slogan with truth behind it we have no doubt.

Engineering Standards.

From the Australian Commonwealth Engineering Standards Association we have three further tentative specifications dealing with (1) electricity meters, (2) hard-drawn copper stranded circular conductors, and (3) railway rolling stock material including locomotive tyres, carriage waggon and tender tyres, and weldless steel angle rings.

All three are based upon British standards, but in order to bring them into line with Australian requirements, certain important alterations have been made. The specification dealing with electricity meters is the first publication of its kind in this country. In all cases the specifications are only provisional and before their final or authoritative issue suggested modifications are invited from those concerned.

The headquarters of the association are at Macleay House, 16 College-street, Sydney.

Federation of British Industries.

Incorporated by Royal Charter, the Federation of British Industries (F.B.I.) issues a year-book dealing with its own membership. The seventh annual edition for 1927-28 is a bulky volume of 680 pages about 9 x 7, in stiff covers. Like previous issues, it gives alphabetised lists of the members and the things for which they stand. The book is really arranged in six sections: — (1) Introductory, (2) Products and Services, (3) Addresses, (4) Trade Associations, (5) Brands and Trade Names, and (6) Advertisements. No. 2 is the longest section, covering 274 pages, while No. 6 is in some respects the most interesting, many of the advertisements being in colour. Each section is marked off by a stout tab, an arrangement which facilitates reference. The frontispiece is a portrait of the president for the current year, the Rt. Hon. Lord Gainford, P.C. On the manufacturing side the federation covers a great variety of interests from "abrasive machinery" with seven entries to "zinc sulphide" with three.

The headquarters of F.B.I. are at 39 St. James's-street, London, S.W.1, and the correspondent in Australia is Mr. R. H. Butler, of Collins House, 360 Collins-street, Melbourne.

Foreign Exchanges.

Foreign rates of exchange in London for cable transfer on the centres and dates indicated, compare as follows:—

Par.	—	—	Sept. 22	Sept. 23	Sept. 29	Oct. 3
4.886	New York	Dols. to £	4.86 11/16	4.86 11/16	4.86 11/16	4.86 11/16
4.866	Montreal ..	Dols. to £	4.85 7/8	4.86 1/8	4.86 1/8	4.86 1/8
25.225	Paris	Frcs. to £	124.00	124.00	124.00	124.00
35.000	Brussels ..	Bels. to £	34.93	34.93	34.94	34.94
25.225	Rome	Lire to £	89.30	89.20	89.20	89.18
12.107	Amsterdam	Florin to £	12.13 3/8	12.13 3/8	12.13 3/8	12.13 1/4
12.107	Batavia ..	Gul. to £	12.14	12.14 3/8	12.14 1/8	12.14 1/4
18.159	Stockholm	Kron. to £	18.10	18.10	18.09	18.09
18.159	Oslo	Kron. to £	18.43	18.42	18.45	18.48
18.159	Copenhagen	Kron. to £	18.17	18.16	18.17	18.17
20.43	Berlin.. ..	Gmks. to £	20.42	20.42	20.45	20.43
24	Calcutta ..	Pen to rup.	18	18	18	18
24.58	Yokohama	Pen. to yen.	23 1/8	23	23	23 1/10
*	Hongkong	Pen to dol.	24	24	24	23 3/8

* Par depends on rise and fall in price of Silver.

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A Certain Seller

CALCIMO

THE ORIGINAL COLD WATER KALSOMINE

Wholesale Distributors for Victoria:

BROOKS, ROBINSON & Co. Ltd.

59-65 Elizabeth Street, Melbourne

Editorial

Customs Tariff Changes in New Zealand

Following upon an inquiry and report by a Tariff Commission, the New Zealand Government have introduced an amended schedule of Customs duties most of which are now in operation with a few deferred till the middle of next year. In bringing the matter before the House of Representatives, the Minister of Customs (Mr. J. D. Stewart) said the objects which the Ministry desired to achieve were fivefold:—

(1) To reduce the cost of living and the cost of production both in the primary and secondary industries.

(2) To assist local industries (both farming and manufacturing) either by increasing the protection already afforded to a certain number of such industries or by reducing the duty on the raw materials, machinery and plant used by them.

(3) To encourage still further trade in goods produced in the British Empire instead of in those of foreign origin.

(4) To remove the protection at present afforded to the very limited number of what are regarded as uneconomic industries, or to the one or two industries which have ceased to operate in the Dominion.

(5) To provide further negotiating power to secure new and increased markets for New Zealand products.

From 644 items in the old tariff, the tariff of 1921, the number has been reduced to 446. This has been affected by regrouping and consolidating some of the items, and in a few cases by withdrawing protection conceded to certain industries which have not proved or are not proving suitable to New Zealand conditions. Throughout the whole piece practicaly the preference to goods of British origin has been extended. In a few cases duties have been increased, but for most part the changes are all the other way. Duties have been reduced, and the losses under the new schedule are expected to approach £330,000 a year. On present trade figures, that is to say, the remissions of duty represent that amount. If in the result any considerable portion of the trade now held by foreign countries is diverted to Empire markets by reason of the larger preference, the loss of revenue may be greater.

Special protection is to be afforded to the iron and steel industry. For some years the Onakaka Iron & Steel Co. Ltd. have been producing pig iron of good quality at Onakaka, in the South Island. But according to the Minister of Customs, the success of the undertaking has been prejudiced to a considerable extent by the importation of Indian pig iron. The Government have satisfactory evidence that this iron is sold to New Zealand purchasers under conditions which amount to "dumping," and consequently on all shipments of such pig iron where its imposition is warranted a duty will be charged "equal to the difference between the current domestic value as defined by the Customs Acts and the actual selling price as set out in section 11 of the Customs Amendment Act 1921." The duty is expected to exceed £1 per ton, and even to reach £2—that is if the past proves any guide for the future. "Importers will be required to ensure that the correct particulars as to current domestic values, actual selling prices, etc., are shown upon their invoices, and that the goods are properly entered. It is considered reasonable, however, that merchants should receive notice of the imposition of this duty, and accordingly the action indicated above will be taken with respect to all such shipments imported after December 31 next. If, however, an endeavour is made to defeat the objects of the dumping provisions of the Customs Act by the importation of pig iron in what are regarded as large quantities, the Government reserves the right to immediately impose the duty. It is believed that this action will, with the assistance already given to the industry, enable it to be successfully carried on."

At a later date the Parliament will have an opportunity of discussing the new duties in detail, and the Minister in charge has promised to assist honourable members by laying on the table the report of the Tariff Commission. Elsewhere in this issue we place in juxtaposition the new and old duties on those lines which possess direct or trade interest for our readers.

The Consolidation Movement

Throughout the Commonwealth on the financial side consolidation of interests has been carried to a considerable distance. Ten joint-stock banks, one-State banks for most part, have already disappeared as separate entities. They have become merged in one or other of the larger banks doing business in all or most of the States, and better able consequently to withstand any local or limited distress or disturbance. Australia is too big a country for the whole to suffer at once from any natural cause at any rate. But few of the smaller banking institutions are now left, and if report speaks truly, the passing of these or some of them is only a matter of time. They seem destined to be swallowed up by the institutions of broader base and longer reach, of ampler capital and greater prestige.

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On the mercantile side, also, recent years have witnessed a good deal of consolidation of interests especially in the soft-goods trade and among the large general stores doing business with the public. Local and inter-State amalgamations can be pointed to in these fields, certain of them involving large capital investments. One of the universal type, a comparatively recent comer, has so grown by amalgamation and extension that to-day it surpasses in capital and turn-over all its competitors, some of them far-famed and long-established. Nor is hardware exempt from this tendency. In Melbourne not long ago a firm of long standing sold certain of its interests to other firms, and the old address knows it no longer, and now word comes of the amalgamation of two of the oldest wholesale hardware houses of Sydney, houses going back to the early days of that city and State. Both are registered companies with a combined capital of something like half a million, and by joining forces they hope to reduce overhead expenses and make their investment more productive. For the wholesale hardware merchant business is not what it once was. Men like the late John Keep, of Sydney, or Edward Keep, of Melbourne, could speak of the fat profits made in days gone by when needs were pressing and money plentiful. To-day there is keen competition, with the province of the wholesaler invaded at various points. Huge department stores have grown up which buy for themselves in the markets of supply at home or abroad and buy sometimes in quantities as large as the wholesaler himself. These can and do compete with him for the trade of the country storekeeper or supply country consumers with goods which otherwise the storekeeper would be called upon to furnish. Then there are manufacturers who sell direct, and commission and other agents who take orders for one line after another to the prejudice of the wholesale merchant or warehouseman. These things, we take it, explain this tendency to rearrange and consolidate with consequent economies of administration.

Cash Orders in Victoria.

As stated in our last issue, a bill introduced by a private member is now before the Legislative Assembly of Victoria which, if passed into law, would forbid the further sale and purchase of goods under what is known as the cash order system. Since the introduction of this repressive measure a great deal has been said and written on the subject, and the discussion has helped to show the extent to which the system now obtains and the growing opposition of the trading community as they come to know more of it and its real results. In Melbourne alone there are said to be at least fifty concerns issuing such cash orders, some of them companies with large capital behind them.

One financial writer who has looked into the matter admits that the system involves a heavy tax on both buyer and seller and is quite alive to the fact that it promotes extravagance in the purchase of what he calls "luxury goods." Nevertheless he regards its suppression as inadvisable and even impossible. This seems a lame conclusion. If the thing is so hurtful, if it is not a healthy growth but a parasite on the plant of commerce, why should it be tolerated? Why in any community that has regard for market moralities should outsiders be allowed to come between buyer and seller and levy their tax on both? That is exactly what these cash order companies are doing, and most traders at least would gladly shake off the incubus if they could. Years ago in Victoria, the coupon companies, which had attached themselves to commerce, were prized off by a Parliamentary lever, and although cash order companies may be able to show a little more reason for their existence, they ought to be dealt with in similar fashion. They are interlopers making more difficult the lot of the legitimate trader and encouraging extravagance on the part of many unthinking or unthrifty people.

Electricty in Agriculture.

Science has again lightened the labour of the farm. In England, at the famous Rothamsted Experiment Station, a ploughing apparatus has been developed which moistens the soil to the proper consistency for ploughing, as the plough moves through the earth, by means of an electric current.

The plough passes more readily through a moist soil. Moisture, as is well known, acts as a conductor of electricty, effecting a circuit between the positive and negative poles of a charge and producing a condensation of moisture on the negative pole.

Slightly moist soil will also conduct electricity. Thus by attaching to an ordinary plough a small electric generator and by the use of a metallic electrode in the form of a cutting coulter, rigidly suspended a short distance in front of the ploughshare to create a positive pole, an electric circuit may be brought about between this coulter and the steel ploughshare, which is made the negative pole and receives the film of moisture. This acts as a lubricant to reduce the friction between the blade of the ploughshare and the soil and makes the soil slide over the mouldboard of the plough more easily. Such a process is simple, and the generator does not greatly increase the weight of the plough.

The old English system of mole drainage for compact and poorly drained subsoils may also be facilitated in this way. The shell-shaped borer which pushes the soil away from a circular drainage way from 18 to 30 in. below the surface of the soil in this case is made the negative pole and accumulates the friction-reducing moisture. This method of making an underground drain is much cheaper than tile drainage, and the circular drainage ways are said to remain open in the earth for 10 or 12 years.

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Inquiry Column

TRADE INQUIRIES

During the month we have supplied answers to the inquiries indicated below. Firms with whom we have not already communicated who hold any agency connection with the firms, or handle any of the lines mentioned in this section, are invited to furnish us with particulars so that our lists may be complete.

Information Wanted.

Bolinder Oil Engines.—Name and address of agents wanted.

"Bouser" Coal Pick Handles.—Name and address of agent wanted.

Western Australian makers of aluminium ware.—Name and address wanted.

Whitney Metal Tool Co., Rockford, Ill., U.S.A.—Name and address of agent wanted.

Henry Disston & Sons Inc. (Aust.) Ltd., Sydney.—Name and address of Melbourne agent wanted.

Information Supplied.

Monel Metal.—Name and address of agents supplied.

Bissell Carpet Sweeper.—Name and address of agents supplied.

Collier & Co. (hack saws).—Name and address of agents supplied.

"Andrews" Fuel Stove.—Name and address of maker supplied.

"Valet" Safety Razors.—Name and address of agent in Melbourne wanted.

Asbestos Paints.—Name and address of manufacturer in Melbourne supplied.

American Wringer Co., Woonsocket, R.I., U.S.A.—Name and address of agent supplied.

"Swan" Brand Aluminium Ware.—Name and addresses of manufacturers and agent supplied.

C. E. Jennings & Co., New York City, U.S.A. (tools).—Name and address of agents supplied.

Bifurcated & Tubular Rivet Co. Ltd., London.—Name and address of Victorian agents supplied.

Max Sievert A/B., Stockholm, Sweden (blow lamps).—Name and address of agents supplied.

Aluminium Ware.—Names and addresses of Adelaide manufacturers and their agent in Melbourne supplied.

Breaking Strains of Oregon Timber.

One of our Victorian subscribers (51/213) asks if we can tell him "the breaking strain of a piece of clear Oregon (free from knots) 12 x 3 and 40 ft. long. If a post is fixed at each end and the 12 x 3 placed on edge with a weight swinging midway between the two posts" what weight will the timber stand before giving way?

A.—The following table of breaking strains has been furnished to us as coming from Mr. J. Mann, of the Engineering School at the Melbourne University:—

Clear Oregon Timber.

Size and Span.		Breaking Weight.
12 x 12	30ft.	1980 lb.
„	25ft.	2376 „
„	20ft.	2970 „
„	15ft.	3960 „
„	10ft.	5940 „
9 x 9	30ft.	825 „
„	25ft.	1002 „
9 x 9	20ft.	1203 lb.
„	15ft.	1670 „
„	10ft.	2405 „
6 x 6	30ft.	247 „
„	25ft.	296 „
„	20ft.	376 „
„	15ft.	494 „
„	10ft.	741 „

Mr. Mann says that a piece of 12 x 3 would carry not one-fourth but one-third of the figures applying to 12 x 12 above. In all such testing the uprights must be perfectly perpendicular and the test piece quite level, otherwise the results will not be fair or true. Not only so but the weight must be swung from the centre exactly.

Eighty Years and Still Extending.

Established in 1847 by the late Mr. Charles Davis, the business of Charlse Davis Ltd., in Hobart, Tasmania, recently celebrated its eightieth birthday. The founder died in 1914 and the business is now in the hands of his sons, Mr. Charles Davis and Mr. Alfred T. Davis. There are others on the directorate, but the active control is in their hands.

Contemporary with the eightieth birthday was the opening of a new basement. Needing more room, the firm decided to secure it by excavation, no easy job as it proved because, for some reason unknown, a solid mass of concrete underlay their premises in Elizabeth-street. Blasting was necessary, but the work was done, and as opened by the Mayor of Hobart (Alderman Wignall), the basement measures 112ft. by 26ft., with floor of malthoid on concrete and walls and ceiling lined with white fibro-plaster. Seven windows on one side admit plenty of natural light, and this is augmented by powerful electric units. The basement is well stocked with hardware, crockery, glassware, electrical goods, and fancy goods. At three o'clock in the afternoon the additions were opened with some little ceremony, the whole place being bedecked with flags, and after the mayor had made a congratulatory speech and Mr. Charles Davis had replied, the whole party ascended to the top floor, where afternoon tea was served.

Interesting Patent Case.

The Commonwealth Patents Office has decided that an inventor must apply for letters patent before he discloses the nature of his invention in any public manner. To put it otherwise, previous disclosure for business reasons destroys any chance of obtaining patent protection. The inventor thus gives his invention away.

Some time ago one T. van Bergen applied for patent rights in an invention relating to the retreading of rubber tyres. The application was opposed by Nu-Tred Tyres (W.A.) Ltd., on this among other grounds, that the invention was already in possession of the public with the consent or permission of the inventor.

It was shown that the applicant disclosed the invention prior to the date of the application to several persons, and on the evidence filed on behalf of both the applicant and the opponent, the deputy commissioner (Mr. C. S. Teece) decided that the disclosures were not conducted on a confidential basis, but were made to several persons in an open manner solely for the purpose of obtaining some commercial gain. By this means the invention passed into the possession of the public with the consent or allowance of the inventor prior to the date of the filing of the application for patent.

The grant of letters patent was refused and costs were granted to the opponents.

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Sundry Credits

By J. Knibb.

A Big Blast.

What is claimed to be the biggest blast ever fired in Australia occurred recently at the limestone quarry of the Kandos Cement Co. Ltd. in New South Wales. Twenty-three holes ranging in depth from 120 ft. to 165 ft. were charged with thirteen tons of gelignite and detonated. About 125,000 tons of limestone were dislodged, or sufficient to make 90,000 tons of cement. Visitors motored in from the surrounding districts to witness the upheaval. A still bigger "shot" is contemplated before the end of the year, one calculated to bring down or send up 150,000 tons of stone.

* * * *

Seen at the Show.

Instances of animals being hosed down at the Royal Agricultural Show in Melbourne are familiar enough. But the other day a prize Jersey bull might have been seen getting his coat dusted for him by means of a vacuum cleaner. Think of that now! Who shall say that farmers and graziers are hopelessly conservative? On the contrary they are taking hold of mechanical inventions with both hands—as is to be expected from men accustomed to the plough. This latest example of their progressiveness opens up interesting possibilities. If Jersey cattle can be groomed in this mechanical way, why not some of the rusty bipeds who haunt the ring?

* * * *

Heavily Handicapped.

At the ordinary general meeting of the Broken Hill Proprietary Co. Ltd. the chairman of directors (Mr. H. G. Darling) had few words of comfort to offer the shareholders. On the mining side prices were coming down, while on every side costs were going up. The State Government was imposing burdens "grievous to be borne," and outsiders were pushing their way in. "We are competing with low-wage countries, and to-day rates of wages alone, without conditions, in the iron and steel industry are 115 per cent. higher than in England." Which being interpreted means that where the English worker in blast and steel furnaces receives 1/- an hour the Australian worker is paid, and has to be paid, nearly 2/2 an hour. These it will be understood are not actual but only comparative rates. All the same they indicate a "muckle tifference" as the Highlander said.

* * * *

The Fundamentalists.

Back in 1828 a school board in Ohio, U.S.A., were applied to for the use of the schoolroom for a proposed debate regarding the practicability or otherwise of the iron horse. This was the answer, "You are welcome to use the schoolroom to debate all proper questions in, but such things as railroads and telegraphs are impossibilities and rank infidelity. There is nothing in the Word of God about them. If God had designed that His intelligent creatures should travel at the frightful speed of fifteen miles an hour by steam, He would have foretold it through His Holy prophets. It is a device of Satan to lead immortal souls down to hell." My authority is an American trade paper. No hesitation about these worthy gentlemen, you will notice. They knew all about it. And their descendants of a century later do not seem to have profited greatly. Who is the "infidel"—the man who welcomes the new or the man who is afraid of truth?

Ignorance or Impertinence?

In a Japanese paper a "prominent publisher" from Canada lets himself go properly on the folly and iniquity of the "White Australia" policy. He has visited Australia five times—so it is said—and knows all about it. From the cultural standpoint, says this "prominent" traveller, Australia is not in it. "The Australians as a whole are quite inferior to the Japanese in this respect. They have no manners." There! I was afraid we wouldn't be able to hide it from the world much longer. And a white Australia? Pooh! "The whole thing from a practical point of view is absurd." Very sure of himself, this Montreal globe-trotter, isn't he? As decisive and peremptory as old Euclid. May a poor scribe suggest that it isn't a matter of superiority or inferiority, but of difference, a difference touching issues which this hasty critic overlooks. For a visitor to describe a considered national policy in these terms is an offence to Australia. For a Britisher to talk this way in Japan is an offence to the Empire.

* * * *

Well Tested.

An interesting illustration of the keeping properties of tinned meat was recently brought to light. Eighty-one years ago Sir John Franklin set out on his ill-fated voyage in search of the North-West Passage to India. Franklin and his entire company perished in the Arctic wastes, and although various search expeditions were sent out, little trace of the lost ships and men was ever found. Among that little was an abandoned sledge, and on that sledge an unopened tin of "bouilli beef." In 1888 this tin was brought to Liverpool, where it remained untouched till last year. Then it was decided to open it in the presence among others of a distinguished bacteriologist. His report showed that at the end of eighty-one years the meat was still in an edible condition. It had a slightly cheesy smell, but there was no sign of putrefaction. Rats ate it readily and suffered no ill effects. The only discoloured portions were those in contact with the metallic container and especially where the lid had been soldered to the body of the tin. At certain points the coating of tin was completely worn away by corrosion. Bacteriological examination revealed no food-poisoning organisms whatever.

* * * *

Who Were the Makers?

What a testimonial for the canners and the makers of the tinplate if they could only be discovered! Sound British material and workmanship stood between that cooked meat and destruction for fully four-score years. If Chicago can beat the record I'd like to hear from Libby, McNeill & Libby or some other firm. Among Arctic explorers no one should possess more interest for the people of the Commonwealth than Sir John Franklin. For wedged in between his sea experiences was a term on land in this part of the world. From 1834 to 1843 he was lieutenant-governor of Tasmania, or Van Dieman's Land, as it was then called, and laboured strenuously to promote the social as well as the political well-being of the colony. Two years after his return to Great Britain he was appointed commander of an expedition for the discovery of the North-West Passage, that long-cherished hope of British navigation, a futile hope as it proved. The passage was and is there right enough, but ice-choked for most of the year, it has no shipping value. Sir John was the first to discover the "passage"—so much is known—but neither he nor any of the 134 brave fellows who sailed with him lived to tell the whole story. They died singly or in groups, and not till 1880 were any of their bleached skeletons brought back to Britain for burial.

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Novelties and New Samples

Practical Washing Machine.

Electricity has now been pressed into the service of the household, relieving women of the old laborious tasks. One mechanical device after another has gradually replaced hand methods, and to-day even the drudgery of washing is unnecessary. In the "Whirldry" machine the efficiency is such that once the clothes are placed in the retainer there is scarcely any further handling required. Steeping, washing, rubbing, blueing: all are accomplished with no greater effort than the operating of a switch.

An inspection of the appliance at work is interesting. Summed up, the principal points of the machine are that it washes cleanly without the least injury to delicate fabrics, and yet is just as efficient with heavy articles such as blankets. It rinses the clothes as thoroughly as the most critical housewife can demand: and the drying or wringing is completed by the machine without further handling. The inner container whirls in a two-way motion when washing, and spins round in rinsing and drying.

In the washing operation a constant flow of screened water is running through, so that dirty water is not used over and over again. The rinsing follows, and the final process is the whirling of the holder, which in a minute or so leaves the clothes almost dry. The elimination of the wringer, with its additional handlings and stripping of buttons, is of itself an achievement. The machine empties itself by a pumping action through a nickelled tube, which emerges at the height of a sink or drain, and no plumbing is required at all. The user does not require to bend the back or lift the clothes container throughout the job. The construction is such that no drop of water spills on the floor, nor do the hands become wet. The "wash" stays in the machine until everything is cleaned, rinsed, blued, and practically dried. Light articles, such as handkerchiefs and under garments are ready for the ironing board.

As to the mechanical side of the machinery, the running parts are surprisingly simple. Even oiling is automatic, while the current used is comparatively small owing to the perfect balance of the apparatus. The whole thing is light, and easily moved about if necessary.

To hardware dealers the mention of washers is perhaps something new. But it is difficult to believe that an efficient and simple solution of the washing day problem would not be welcomed, and this machine should be inspected. It is manufactured by the Winchester Repeating Arms Co., and the Lawrence & Hanson Electrical Co. Ltd., with offices in every capital city of Australasia, are sole agents.

"Steels" for Sharpening.

Mr. Leslie J. Pain, of 209a Castlereagh-street, Sydney, has been advised by Thomas Ellin & Co. Ltd., cutlery manufacturers, of Sheffield, whom he represents, that they are now making a new sharpening steel for keen-edging cutlery. Samples are due to arrive early in October, and the steel is claimed to be much more efficient than the ordinary article. Branded "Vulcan," it is to be supplied attached to all types of handles at a price similar to that of the usual run of steels.

Lock Sets and Sash Pulleys.

A new mortise lock set has been produced by Jinks & Morgan Pty. Ltd., of North Melbourne, making a useful addition to their range of "Prestel" goods. The leading features are a new type of bush, as well as an attractive new design in finger-plates, known as the "Prince" pattern. The lock is only 2½ in., which should be welcome in these days of light doors, and is packed two in a box.

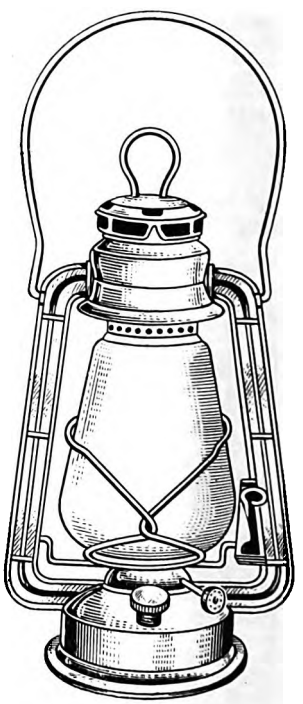
Another line is now available in sash pulleys, made in a range of patterns giving a further choice for the user. Instead of the usual form the new article has a straight face and rounded ends.

Radio Tools.

Colin Maxwell & Co., of 379-81 Kent-street, Sydney, have received advice of a number of new lines from Ewald Ahrem, "Good Line" tool manufacturers, Elberfeld, Germany. Of particular note are radio drill bits in sets of nine, comprising sizes 1/16 to 5/16 in 64ths and which are supplied on cards, paper packets or in wooden boxes to order. These drill bits together with hand drills, radio pliers, turnscrews, and soldering sets, go to make up a complete set for the most exacting radio enthusiast. The soldering set includes the necessary wire solder and ammonia flux. Samples of hand emery grinders in sizes 4, 5 and 6 in. will arrive in the course of a few weeks.

Hurricane Lantern.

Bailey's Ltd., of 117 York-street, Sydney, are showing on behalf of August Ascher & Sohn, Hamburg, Germany, a new hurricane lantern, the "Vulcan." Although strongly made of good materials throughout, the lantern retails at an exceptionally low price. It incorporates several new ideas. The globe is raised in order to give access to the wick by lever action the same as other lanterns, but in this case the lever is locked and the globe held in position until the lever is released by a side movement. An attachment at the top releases the globe, which falls to the side, but does not become detached from the rest of the lamp. A capacious well affords a good supply of oil, the burning capacity being twenty hours.



Expensive Chandelier.

P. Kleemo & Co. Ltd., of 217 Clarence-street, Sydney, and 83 Grenfell-street, Adelaide, have on view at their Sydney rooms a magnificent standing chandelier. It rises 3 ft. 6 in. high with an inside diameter at the top of 1 ft. 10 in. and at the base of 1 ft. Made specially for the Paris exhibition, the article is priced at £367/10/- (350 guineas).

The dome is supported by a solid silver bracket attached to the base, and the hands of the bracket are attached to a solid silver ring round the base. Pendants hang from the dome. Inside are a num-

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ber of lights, and when these are switched on the whole chandelier glitters and throws off brilliant irridescent lights.

New Type of Cartridge.

The Remington Arms Co. Inc. have produced a new type of cartridge which they have named the "Kleanbore." Years of careful experiment have been directed towards the object achieved in this ammunition. The company maintain that when these cartridges are used exclusively it is not necessary again to clean the bore of the rifle. In their own words the sportsman can "throw away his cleaning rod." It is also claimed that the new ammunition makes the ordinary rifle barrel rust proof and stainless.

In tests conducted at their factory, barrels through which thousands of 22 calibre "Kleanbore" cartridges were fired showed not the least sign of erosion, rusting, or pitting. After applying the severest tests, it was found that the inside of the barrel was as bright as when turned out from the factory.

Mr. D. D. Bryant, of 395 Collins-street, Melbourne, is the local agent of the manufacturers, whose headquarters are at 25 Broadway, New York City, U.S.A.

Improved "Acme" Wringer.

Since the Acme Manufacturing Co. introduced their new machine in 1925, further improvements have been embodied including leather lined clamps, which render them specially suitable for use with cement troughs. The draining hole has been enlarged to carry the water away more rapidly, and the efficiency of the bearings has been increased.

The addition of the mangling board for larger-sized wringers is an important improvement. Future orders for 14 in. "New Acme" machines will also have this attachment, whereas previously it was only supplied with 16 in. sizes.

J. Chalever & Co. Pty. Ltd., of 510-14 Collins-street, Melbourne, are the sole agents, and carry spare parts.

"Trans-Australian" Stretcher.

A practical and commonsense wire stretcher called the "Trans-Australian" has recently been marketed by the Cyclone Fence & Gate Co. Pty. Ltd., of 191 William-street, Melbourne. It is made of ¾ in. tubular steel, and covered with the well-known Cyclone chain wire, 2 x 11. The strong tube legs are so constructed that they can be folded back close to the stretcher frame when not in use.

This stretcher should wear indefinitely, as the materials used, and the principles upon which it is built would enable it to bear an enormous weight without bending or sagging. For camps, farms, sleep-outs, or hospitals it should be most useful, and it is not liable to burn, break, nor harbour vermin. The weight is but 44 lb., and the size 6 ft. 6 in. x 2 ft. 6 in., while the price is reasonable.

Tasmanian Tennis Racquets.

A Tasmanian racquet which has found many admirers is being made by the Alexander Patent Racket Co. Ltd., of Launceston. An inspection of the company's various models at the showroom of their representatives, D. & W. Murray Ltd., Flinders-lane, Melbourne, shows many interesting features, while the general appearance and finish are excellent.

The makers emphasise the great strength of the laminated frame they use in their racquet. The grain of each of the strips of wood which compose the frame runs in a slightly different direction. Glued together under a pressure of about nine tons, this gives the maximum cohesion, and yields a stronger article than if made of one piece of wood. Another point is that the frames are dry bent, from a number of such strips, this process, it is claimed, obviating any crumpling of the wood fibres. The timber used is selected ash and walnut.

In all eight designs are produced, including the "Lismore," "Mersey," and "Cressy." Made entirely in Tasmania, the first quality frames carry a guarantee of six months.

British and Other.

Mr. Louis A. Scott, of 200 Castlereagh-street, Sydney, is now showing new samples from several of the manufacturers he represents.

From Harry J. Pratt, Birmingham, comes a new range of fire side goods, and including telescopic kerbs that may be extended from 48 to 60 in. A hearth set and smoker's stand combined is a useful article. The fire side sets are supplied in antique and polished brass, oxidised silver, antique and polished brass, and Greek bronze, as well as walnut and mahogany, the two last named having the appearance at a distance of the wood from which they take their names. Floor electrics can be had in all finishes except walnut and mahogany. Wooden ones are supplied in Jacobean style with metal bases.

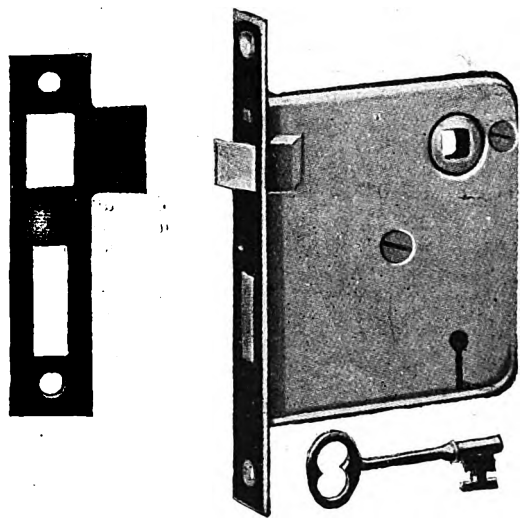
Another new line comes from Schmidt & Brendal, Beyrouth, Bavaria, comprising bead table mats of wood in various colours and uncommon designs. The makers are also suppliers of glass beads and bead mats.

The trade will be interested to know that John Russell Cutlery Co., Turner's Falls, Mass., U.S.A., have by request of clients again gone back to the manufacture of Green River butchers' knives of the 6½ in. size.

A new agency is that of the French Wreath Co., London, makers of all kinds of wreaths and florists' sundries.

Improved Mortice Lock.

R. B. Davies Pty. Ltd., of Hilden House, Sussex and Druitt-streets, Sydney, supply particulars of an improved mortice lock, one of the well-known



"Rossda" lines. Improvements have been made to the internal spring action. The old one-action spring, which had to perform all the functions for operating the lock, has been discarded and two coil springs are now used in its place. One of the springs controls the light-closing action of the snap bolt. This bolt is carried in the bed of the sliding plate preceding the follower, and the follower in turn is

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actuated by a larger coil spring which also works the lock bolt. These controls are made from best round spring wire, and at no time are they extended to 25 per cent. of their limit, thus leaving a reserve of spring, and precluding any likelihood of overstrain. The case is of pressed steel, held together with two screws, and is 3½in. x 3½in. x ⅝in., making the lock adaptable to the very thin doors now so much in use.

An assortment of five styles of plates is included in the range, of either steel or brass, in A, C, B and W Florentine finish.

Cooking Utensils and Bathroom Fittings.

Mr. P. Clifton Jones, of Australia House, 52 Carrington-street, Sydney, who represents Thompson Bros., Birmingham, has received a new range of samples comprising "Chieftain" aluminium table and cooking utensils, bathroom accessories and "Rotary" knife sharpeners.

Last year this firm acquired the business of Napper & Davenport, who formerly manufactured "Chieftain" brand aluminium teapots, etc., which sold extensively in all the Australian States. The samples include six shapes in teapots (separately boxed), with cane, jet, ruby and synthite (semi-transparent-red) handles; cut edge stewpans in three gauges with either patent tinned, tube, black-enamelled steel, solid or "kumfy" bronze handles; casseroles; maslin kettles; lipped saucepans, either straight, taper, or bellied, with cut edges; frying pans with black-enamelled handles; coffee pots; porringers or double saucepans; hot water jugs; kettles with wood grip or tube handles; also a "quick boiler" kettle with 8 in. corrugated base and tubular handle: patent dish warmers; plate covers; open and covered basins: colanders; graduated measures; jelly moulds; funnels; sink strainers; sugars and creams in pairs; teasets on waiters; cake tins; flour and salt dredgers and soap boxes.

The bathroom fittings are manufactured in both polished aluminium, and porcelain white on aluminium. The latter is a hard, glossy enamel, which requires no cleaning, and is unaffected by damp or heat. A speciality is made of outfits, packed in boxes, and with all orders for six sets or more, mounted display boards are supplied. These outfits comprise, a plate glass shelf and brackets, towel rail and ball brackets, toilet paper holder, toothbrush holder, coat and towel hooks, and rustless screws for all pieces. The items enumerated can also be purchased separately if desired.

A new production is a toilet fitment, made of solid cast aluminium, 16 in. by 10½in., with bevelled plate mirror, plate glass shelf, holders for toothbrush and tumbler, with drinking cup and screws.

Other attractive new lines are oval mirrors, with bevelled plate (unframed) to hang, with screws, in two sizes; sponge and soap holders with each bar rivetted: swing towel arms: revolving hooks; hat and coat hooks; and door bolts with slip locks.

Enamelled white on steel bathroom cabinets are made in several styles, with bevelled mirrors and shelves, and cheaper lines with enamelled shelves. In woodware are bathroom stools with cork seats, either square, oblong or round; cork mats; and sponge trays.

Thompson's "Digby Rosary" stainless knife sharpeners, fitted with specially hardened N.P. revolving rollers, are well known, and may be had with ebonised, polished, grained ivorine or nickel silver handles, a favourite style being that with French polished handle and plinth, and ivorine mount. The "Renown" is the latest production in sharpeners with brass body, high grade steel disc wheels and alternative kinds of handles.

Australian Aluminium Ware and Other Lines.

Ayers & James Pty. Ltd., of 100 Flinders-street, Melbourne, are Victorian agents for Sellers Ltd., of Sydney, manufacturers of aluminium domestic ware. Known as "Strong-Lite" brand, an inspection of these samples reveals a great advance in the quality of this class of prodction by an Australian maker. Every article of household ware is offered, and both in design and execution, as well as in finish, they compare with the best-known brands.

The stewpans, milk boilers, and saucepans are of good shape, and ebonite knobs and handles give them an attractive appearance. Teapots, coffee pots, pie dishes, boilers, preserving pans, dish covers, are all available in various sizes. Vegetable dishes are of two patterns, round and oval, and here again the shapes are modern, and the work excellently done. Another item which should find a good demand is a bread board fitting neatly into an aluminium holder. There is also a complete kitchen set of food-containers, of simple but attractive design. A feature is the red pannelled background upon which the names are embossed, greatly enhancing the general appearance.

A two years' guarantee by the makers is given with each article, while the tagging and the showcards supplied are first class.

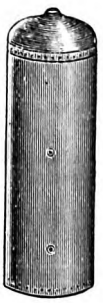
Quite a useful set, comprising four chairs and table for motorists, picnickers, or seaside visitors is a novelty to be seen at the firm's showrooms. Each chair as well as the table is so constructed as to fold up flat in an ingenious manner. The table is of light steel, as also are the chair frames, while the chair seats are of plywood. When folded the thickness is no more than 3 in., and the entire outfit packs neatly into a bag. Although the table is 29 in. by 15 in. when opened, the size of the whole set when packed is such as to permit of its stowing on the running board or other convenient place in the car.

Another new line is the "Sannette" garbage holder for kitchen use. It is finished in white enamel, and compared with the usual unsightly receptacle, is rather ornamental. The inner container, of strong galvanised iron, is fitted with a bail handle for ease of removal. An excellent idea is a lever at the bottom of the tin, which when pressed by the foot opens the lid, closing it again immediately the pressure is removed. One of the most irritating features of a garbage holder is the necessity of stooping to remove a tight-fitting lid. This trouble is overcome in a simple way by the device under notice.

Copper Jacketed Pans, &c.

A. G. Way & Co., of 215-25 Franklin-street, Melbourne, who make a large range of stamped sheet metal and cast iron goods, are now manufacturing steam jacketed copper utensils for various trades.





These are made of different designs and sizes, suitable for jam or confectionery factories, as well as for makers of drugs and chemicals. Copper cylinders for hot water services of every size and for every purpose are also supplied. The illustrations show the class of appliance made.

The firm have recently installed the necessary

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equipment for the production of go-cart and perambulator wheels, as well as those for fitting to scooters, tricycles, and similar light vehicles. These can now be supplied in any quantity.

Hardware stores will be interested in a new departure in pot display stands. In addition to the usual cast iron type, the firm have designed one of sheet metal. This is light and strong, and stands firmly on its feet. It should prove a useful adjunct to the holloware department.

For the coming season mention should be made also of hose reels, tripods, and hose racks, all made in different patterns and sizes, together with garden seats of all kinds, circular iron seats, tree guards, guards, and folding garden chairs.

Pottery and Glassware

Burslem Goods.

Mr. James Henderson, of Aberdeen House, 204 Clarence-street, Sydney, has recently opened a comprehensive range of samples of earthenware from the factory of Wood & Sons Ltd., Burslem, England.

Bowls in octagon and rounds, vases in assorted shapes and sizes, coffees, teas, fruits, sweets sets, powder bowls and ash trays comprise the range, and the beautifully executed piscatorial effects in these creations, the dominant note being orange and blue interspersed with tangerine and other delicate shadings, give them an elegant appearance creating the effect of something different.

Another decoration that stands out is that of hand-painted floral and fruit combinations on cream foundations in which the artist has portrayed as faithfully as possible the tonal values of his subjects.

Teapots in a wide variety of designs and decorations comprising octagon, Celia, Melba, Banff, City and Ideal are among the many shapes displayed on behalf of Gibson & Sons Ltd., also of Burslem.

Japanese Glassware and Crockery.

Mr. Stanley C. Hill, who was for seven years sales manager for Hobo, Kondo & Co., Eastern merchants, has now branched out in business on his own account in Queen Victoria Buildings, George-street, Sydney, as representative for Kiku Gumi Ltd., general manufacturers, Kobe, Japan. On their behalf he is displaying a comprehensive range of crockery, glassware, fancy goods, toys and xylonite ware. Household tumblers, hotel jugs, and dice box glasses comprise the plain crystal display, while in fancy cut crystal ware are water sets, champagnes, ports, sherries, salads, comports, powder bowls and vases in assorted shapes and sizes. Of good quality and reasonable price these specialities are in appearance suggestive of much more expensive articles.

Crockery is represented in a complete range of teasets in Worcester, Paris and Minton shapes, the decorations of which are executed in white and gold and mazarine blue. Teapots in different shapes and decorations, cruet sets and a line of fancy coloured porcelain salt and pepper shakers complete the china section.

Plain white enamel hollow ware is represented by basins, pie dishes, mugs and plates, all of which are in various sizes and shapes.

Also From the East.

Comprehensive stocks of fancy Morimura china from the Noritake Manufactory, Japan, aluminium from leading English and Continental houses and blown glassware from the East constitute a fine display at the warehouse of Mr. P. Reuben, Singer Buildings, York-street, Sydney. The chinaware is of a very high grade comprising teasets in blue and gold hand painted erased work while for other themes rural scenery in natural colours, futuristic effects in black and white enhance their appearance.

Smokers' outfits for both sexes are new lines and their construction varies considerably from the accepted form of these articles. One, for instance, is built in three separate pieces which, when put together, resemble the "cosy cottage." The roof in red colour has a matchbox holder, and the body, which is suitably decorated, is a container for cigarettes, while the foundation serves as an ash receptacle. Others have statuette tops in various modes of dressing which make them suitable for ornaments as well as for use.

Pearl lustre finish china cruets are further novelties in stock and one in the form of an elephant which is placed on a nickel stand with the saddle or carrier serving the purpose of pepper, salt and mustard containers, is particularly noticeable. Various types of birds are subjects for other designs utilised in these condiment sets. "Gladeye" cups and saucers, so called because they have the imprint of a face with a coy expression, are an exclusive line to this firm.

Coffee sets beautifully decorated with birds, floral and jade, and other designs, are an aristocratic offering. Many shapes including the alabaster can be supplied, also for card players are cups and saucers which have clubs, diamonds, hearts and spades imprinted synchronising with the atmosphere in which they serve. Blue camel, red sunset camel and brown buterfly scenes are distinctive and the faithful reproduction and attention to detail is really startling.

Bohemian and British.

Reslaw, Green & Co., of 163 Pitt-street, Sydney, have recently been appointed agents for E. Pryl, Bohemia, on whose behalf they are showing cut glassware covering all sorts of useful and ornamental articles. Originality of shape and design, as well as richly embossed decorations are features of the samples. Some unique shapes are being shown in decanters, with tumblers and goblets to match. There are new designs in vases, and the suite glassware, embracing all the necessary assortments, is attractive and dainty. Of glass toilet sets some very fine examples are on view, while the trinket sets are new and pretty.

The table showing samples from F. Wilkinson & Co., Stourbridge, glitters with its grand display of crystal cut glass, in modern and interesting designs. A handsome claret jug, deeply cut and richly decorated, attracts attention because of its dignified and original shape. There are also squat-shaped jugs, made so in order to fit in ice chests, the goblets being in harmony with the shape of the jugs.

A wide range of vases makes an attractive exhibit, the sizes ranging up to 14 in., and all are deeply and beautifully cut. Crystal candlesticks are again coming into vogue, dignity of shape and pattern being the characteristics of some now being shown. The flower bowls are beautifully cut, with indents for holding the flowers in position.

Fine Display of British Goods.

Mr. A. B. Wahlers is now occupying sample rooms in Aberdeen House, 204 Clarence-street, Sydney, having removed from the old address in Ammunition House, Clarence-street.

The increase in floor space has enabled him to display more effectively the new sample ranges on behalf of his various principals. Stuart & Son Ltd. Stourbridge, England, are represented by a comprehensive array of all the newest patterns and cuttings in cut crystal, a feature being the new cake tray which comes in a variety of fancy intricate cuttings

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Round in shape with a grip rising from the centre, it should be an acquisition to any sideboard for use as well as ornament. Comports beautifuly cut and designed are up to the highest standard set by the firm. Lamps, centres and magics, float bowls, salads, water sets, vases, spirits, sweets dishes, trinkets, powder bowls, are in all types of cuttings.

Earthenware from the factory of Myott, Son & Co., Cobridge, England, comprise dinner and tea ware. Among the many shapes and decorations is the "Nelson" with its flowers and birds of different hues on a contrasting coloured base. The "Trafalgar" has, instead of the usual octagonal plates, been manufactured with twelve sides, and the all-over decorations give the set the appearance of high quality porcelain. In line with other manufacturers this firm will execute orders for their tea ware in any decorative theme portrayed in their dinner ware.

Jackson & Gosling, manufacturers of "Grosvenor" china, are represented by an attractive range of tea-ware, the "Queen Anne" shape being a new type. Rounded at the top, the cups narrow gradually to about half an inch from the base, where a slight deviation from the regular shape causes them to resemble goblets with handles. Square plates, which are fashionable on the Continent, can be supplied similarly decorated at a slightly higher cost. Cups octagonally shaped with floral tints on cream foundation have a soft appearance which is an aid to their charm and distinction.

American Glass and Staffordshire Jars.

Mr. Louis A. Scott, of Danks' Buildings, Pitt-street, Sydney, is showing new samples on behalf of the United States Glass Co., Pittsburg, U.S.A. Very beautiful are the pink glass transparent and the satin finish afternoon teasets. Delicately tinted, they add an air of refinement to the surroundings. Utility lines comprise fruit bowls and hygienic cake dishes, the latter being quite in a new style with handles projecting from the centre of the dish. Also new are the Damascus sets in black satin glass with enamel ornamentations in gold and colours. Vases, fruit and cake dishes are also available. Another very attractive line are the pink transparent wine glasses and goblets. Etched on panels they look very smart. Attractive also are the etched wine glasses on green and amber stems. With hollow stems, and delicately etched with vintage designs come champagne glasses. Kitchen-ware in opal glass comprising mixing bowls, measuring cups, rolling pins, sugars, pudding bowls, and other articles are handsome as well as useful. A clothes sprinkler is included with the sets. A whole set is also made in transparent green.

Fashionable in America and now coming into favour in Australia are the relish sets, comprising three and four compartments, with a mayonaise cup. Amber and gold decorated jugs, sugars, creams, butter dishes and so forth make an appealing display. The old punch bowls, again coming into favour, are made of heavy crystal glass, richly cut and embellished. Butter and jam dishes, jugs and so forth are on green and pink satin blanks, decorated with daisies, forget-me-nots, and crysanthemums. Cheese and cracker sets have a dish in the centre with receptacles for biscuits outside. Wall vases are in various finishes in satin blanks. Uncommon are the articles on satin blanks, with the decorations inside, giving the appearance of having been frosted. Another noteworthy line bears Valencia decorations, encircled by black and gold lines on crystal, relieved with primrose and red checks.

From Marley, Fox & Co. Ltd., Fenton, Stoke-on-Trent, come kitchen jars made to nest into each other. They are in ivory, plain and decorated and are made to compete with the Continental variety. New designs are in keeping with the decorations. Sweets sets are supplied in various designs.

British and Continental.

Bailey's Ltd., 117 York-street, Sydney, are showing large and varied stocks of crystal glass, pressed glass and pottery. Some very high quality crystal is on view from the Stourbridge Glass Co. Ltd. All goods from these manufacturers now bear the registered word "Tudor," and while all are remarkably fine, some are exceptionally beautiful. A punch bowl, signed by the artist, calls for special mention, being a rare work of art. The crystal is pure water colour, embellished with gracefully drawn lines and festoons, some deeply cut and others finely etched, relieved with baskets of flowers and fruit done in dull style by way of contrast. Some of the examples of the intaglio work shown at the recent British Industries Fair in London are among the latest to be added to the stocks, and these are worthy of note, the patterns being new. A footed rose bowl should be a fit adornment for any table, being bell shaped and richly cut and decorated. Water sets with footed goblets are another noteworhy line, and are varied as to shape and design. The Jacobean styles are arresting in their old time beauty. Toilet sets are becoming more and more popular, being so appropriate for gifts, and a wide choice of beautifully cut designs is available for selection. Unique are the elongated sandwich trays. Tall bon bons are another new feature, lending themselves admirably to table decoration.

American pressed glassware is also stocked. The "flamingo," a delicate rose colour, and the "moon gleam," a delicate green, are said to be fashionable in America. Water sets, butter dishes, vases, sugars and creams, as well as pot pourri dishes are among the articles supplied in this latest innovation.

Royal Albert crown china teasets from Thomas Wild & Sons make an imposing display. The manufacturers specialise in Crown Derby decorations, although they do not confine themselves to this fashionable line, others being turned out in prints, self colours and so forth. All grades are manufactured, from the lowest to the highest priced articles. One very striking set is heavily bordered with black, gold and red decorations, relieved with small floral panels and dainty festoons. A special set has a floral litho border with a background of powdered blue colouring, relieved round the edge with a narrow chain in black and white.

T. W. Barlow & Sons, who work in harmony with Thomas C. Wild & Sons in producing dinnerware to match the latter's teasets, particularly those in Crown Derby, are also represented.

A new agency is that of August Ascher & Sohn, Hamburg, a house carrying a wide and varied range of chinaware, glassware, enamelledware and many allied lines particularly suitable for the hardware trade, including tiles for all purposes.

English Pottery.

The English "Pottery Gazette and Glass Trade Review" for August reports that much of the present activity in British factories is due to the demand from Australia and New Zealand. These countries are described as easily the best overseas purchasers, their requirements representing a very large proportion of the export trade. Consignments for the Christmas period were then being shipped. For the six months ended June 30, 1927, Australia and New Zealand purchased pottery lines of British production to the value of £640,275, Australia's share of this amount being £468,336, or £110,000 in excess of the same period for 1926.

Cheetham & White, of Cromwell Buildings, Melbourne, who are Australasian representatives for E. Brain & Co. Ltd., of Fenton, Staffs., expressed no surprise when these figures were quoted. The support afforded by the trade here to their principals,

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who are manufacturers of the well-known Foley china, gave an indication of the demand which exists in this market especially for good quality lines. The cheaper classes of ware doubtless showed a greater bulk of business, but the higher prices of better grades would prove that a big proportion of the total value of imports represents a genuine appreciation of good chinaware throughout the Commonwealth and New Zealand.

Such teaware, for example, as the Foley patterns known as "Tudor," a fine china with an appeal to the "artistic" sense, meets with instant success here. One of these designs with a green edge is specially popular, and following a recent reduction in price, a largely increased demand was at once experienced. Another set, the "Sylvan," which embodies old world silhouettes in its decorations, could not be appreciated as greatly as it is for utility alone, but requires at least some discernment of the intrinsic value of beautiful things.

An illustrated catalogue of the Foley range for Australasian buyers bears out the contention that the makers have found it profitable to offer some two dozen distinct and characteristic designs for local trade. There are, of course, many fine things shown which are within reach of the moderate income, but the fact remains that a leading producer finds a constantly increasing market for china ware of real worth. In New Zealand this taste is marked. Visitors to that Dominion are often astonished at the wonderful displays to be seen in the city stores, and the existing demand for quite expensive pieces.

It is reported that on one occasion the representative of a Staffordshire factory casually showed a Christchurch firm a sample suite of unique and exclusive ware, of which only one hundred were made. He expected to sell at most two or three sets and could only gasp his astonishment when the buyer asked how many were available, and on being told said, in a matter of fact way, "I'll take the lot!"

English Ware in Pottery and Glass.

T. W. Heath & Co. Ltd., of 232 Clarence-street, Sydney, have lately received new ranges of china, pottery and glassware from several of the manufacturers they represent.

Burgess & Leigh Ltd., Burslem, are represented by upwards of a dozen different patterns of shallow sandwich trays, each supplied with six square plates, forming complete supper sets. Willow, Satsuma, black lace and black check are included with others to match popular styles of dinner services, and stocks of these sets are expected to arrive in time for the Christmas trade. Dinner services from these makers comprise a number of interesting variations of Crown Derby, wherein the band and gold tracings are particularly rich. The vegetable dishes are mostly Empire shape and feature a new style of handles which are flat and continuous from the rim, and therefore not nearly so liable to get broken. A number of signed pieces by Miss Rhead, an artist well known to the English pottery trade, comprise large fruit dishes, bowls and vases bearing bold colourful designs of fruits and flowers. Some of these are finished with a fine lustre over the glaze.

Chapmans Ltd., of Longton, England, makers of the "Standard" brand china, are represented by a seemingly endless array of teasets embracing almost every known shape, with many new and attractive decorations. The latter predominate in delicate and dainty border designs, while modifications of Crown Derby find special favour. Considering the fine quality of these productions, they are very moderately priced.

New ranges of Shelley china introduce Queen Anne shape teasets with square plates. On white and art shades of pink, blue, canary and other grounds the fine pen line designs are particularly neat and effective. Vases in quaint and artistic shapes are attractively decorated with kingfishers in their bright natural plumage, pleasingly arranged upon French grey, black, red and tangerine grounds. The Lucie Attwell lines of nursery china have been appreciably extended with new and pleasing childhood pictures equal to the best of that artist's happy productions, which are expressly drawn for the makers of Shelley china and are becoming increasingly popular.

The Worcester Royal Porcelain Co. Ltd. show an elegant range of Royal Worcester service plates. One sample combines a powder border with rich gold lace effect over-printing. Another, a specially fine line, pictures Bothwell Castle, by J. Stinton, R.A., in the centre of a cobalt blue and gold surround, while others again bear rural, lake and mountain scenes by noted artists. In the same range, too, are several all-gold plates with chaste embossed and burnished designs of exquisite beauty. High-grade dinner services are in evidence with natural size and coloured fruit groups—in the centre or as borders, and a few combinations. In the same category of designs are a number of beautiful dessert plates, while tea and coffee sets are shown in the new powder blue with figured tracings in various patterns. A novelty from this firm is a Worcester, Crown ware cup, shaped like a small biscuit barrel, having a bright metal screw cover. Its purpose is for cooking and serving eggs either in or out of shell.

Salt & Nixon Ltd., of Longton, are well represented by a large collection of teasets in which variations of Crown Derby decorations are approvingly introduced, while other notable lines are designed to match the "Burleigh" Satsuma dinner services. Nor can we pass without drawing attention to the fine application of fruit decorations on teasets, and a line having a panel band or border of light brown with tracings of burnished gold, and which are virtually repeated in French grey, maroon and green. Accompanying these, too, are coffee sets to match.

Richardson & Sons, of Stourbridge, who furnished the Governor-General's house at Canberra with complete table services of crystal glassware, make a comprehensive display of vases, rose bowls, jugs, salads, water sets, wines, goblets, etc., and a line of sandwich trays made expressly for the Australian trade. The clearness, sharpness and evenness of cut and general brilliance, mark the fine quality of these productions.

Homogeneous Lead Coating for Steel.

A lead coating process which eliminates the use of soft solder or tin as a flux has been developed by the Gross Lead Burning & Coating Corporation of Cleveland, Ohio, U.S.A. It is being used for coating steel, brass, and copper containers for corrosive acids.

Pieces to be coated are cleaned by pickling in dilute sulphuric acid and rinsing in cold water, then being immersed in a pure lead bath. The flux floats on the top of the bath, and the pieces are coated with it as they are dipped into the molten lead. The pieces are left in the bath until a skin base is formed. Successive coatings are then built up by the lead burning process by means of a burning bar and oxy-hydrogen torch. Pieces too large to be immersed are sand blasted or cleaned with emery wheels. The work is preheated, the solution is applied, and the lead put on with burning bar and torch.

Advantages claimed for this process are that it will stand the temperature of molten lead before loosening; the coating will not peel, buckle, crack or blister; it is impervious to the effects of heat expansion and contraction, and coated sheets can be crimped, rolled, or beaded without damaging the coating.

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A Page of Hints and Helpful Criticism

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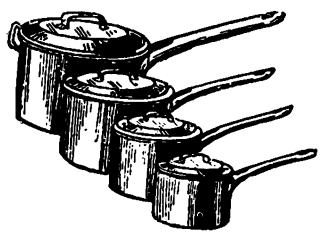
The Proof of the Pudding.

Flavel & Sons Ltd., of Adelaide, have written to us regarding the advertisement which, by their request, we criticised in our last issue.

They inform us that the advertisement appeared in the daily papers, but they do not say how frequently nor in what position. However, referring to our last paragraph, they advise that the ad. was "most pulling."

If it sold saucepans we are not surprised, but if it brought forth

Flavel's
HARDWARE SPECIALS



Enamel Saucepans, large set of 4 .....set	7/11
Aluminium Saucepans, large set of 4.....set	10/9
Aluminium Canisters, set of 6.....set	18/6
Aluminium Roasters, a gas saver.... .. each	13/6
Enamel Toilet Sets, pink or blue ..... set	17/6
Babies' Baths.....each	15/6
Alladin Table Lamps, each	87/-
Aluminium Egg Poachers each	4/11
Saucepan Stands for 7 pots .....,..each	11/6
Clock Face Scales....each	6/6

Send for Catalogue. Phone 2744

FLAVEL
AND SONS LIMITED
211-15 RUNDLE ST.

big sales of babies' baths and Alladin table lamps the fact is rather an indictment of the value of illustration and layout.

We suggested that if the advertisement were of daily appearance it would be better to specialise in one or two lines each day, and Messrs. Flavel say that they would like to compare their idea with ours, and they ask that we set up such an advertisement. Here again we have no particulars of the articles for sale. Enamelled saucepans, for instance, are made in various qualities, colours and finishes. The riveting of the handles might be an important selling point, or it might be better left unmentioned!

Babies' baths are made in various shapes, sizes and colours; and some are sold unpainted. Such information is necessary to determine how much space should be allotted to "copy."

As for Alladin lamps, the writer has asked six good and (more or less) artistic housewives, and not one could tell him exactly what such a lamp is like nor anything of its advantages over other lamps. How much stronger, therefore, would be a suitably illustrated and worded advertisement!

Nearly Every Success Starts From a Suggestion.

(The Silent Partner.)

Galileo saw a lamp swinging in the cathedral at Pisa, and with this suggestion to start with, the old boy conceived the idea of measuring time with a pendulum.

There are enough suggestions before you this very moment to make you rich and famous.

The trouble with us fellows is that we want our opportunities fully developed and delivered at our door.

Nearly every success starts with a suggestion. The keen observers and the busy thinkers mould suggestions into something. The man that is looking for a fully developed opportunity never finds it.

If every opportunity was branded as such and explained to everybody, opportunities would be so plentiful that we would spend our time searching for suggestions.

Opportunities in the hands of everybody would not be opportunities.

The cleverness or ability to see a suggestion and then turn it to use is the trick, and here is a suggestion worth trying: THINK!

I do not believe that it is possible for a man to think seriously for a reasonable length of time without developing a suggestion that will pay several times for the trouble of using his head.

How aptly does this apply to advertising?

Advertising and Sales.

To what extent should the Advertising Department be held responsible for the maintenance of sales? This question is frequently under discussion and will never be settled.

The best parallel to a business organisation is the time-honoured one of a sports team—especially a football team. If team-work is absent the team will certainly be beaten—unless its opponents are equally weak, which is unlikely.

For the purposes of this discussion let us take the Centre Line as the **Advertising Dept.** and the Forward Line as the **Sales Force.**

One does not need to go further back than this season to find football teams having excellent centre lines to feed the forwards, but the latter too weak to score. Then, on the other hand, we have seen teams with splendid forwards that were starved by weak centre lines.

So that while it is true that the forward line can and does score despite a weak centre line—just as the latter's persistence sometimes brings a meed of success through others than the team's forwards—the interests and purposes of both departments are almost identical.

The writer is in good company in considering that each should bear an equal share of responsibility, and that only by close co-operation can the utmost be got from the efforts of either.

However, we sometimes meet with curious points of view. Not long ago a certain Australian "merchant prince" remarked that the figures of his No. 1 territory were good on account of good sales management, but that in No. 2 territory they were stationary on account of indifferent advertising.

Now, the advertising was the same in both places and the "psychology" of the two was much of a muchness; but the advertising department got it hot from both sides because, while the lethargic No. 2 territory defended themselves by blaming the advertising for their position, No. 1 supported them in order to enhance their own reputation for sales management.

If any of our readers care to send us their opinions of the proper position of the advertising department in relation to the rest of a commercial organisation, we shall be pleased to have them.

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Personal and Social

From Dunedin to Sydney.

Mr. T. A. Begbie, late manager of the wholesale crockery and indent departments of Laidlaw and Grey Ltd., Dunedin, New Zealand, has been appointed manager of the Sydney branch of Mr. A. B. Wahlers, manufacturers' representative, 204 Clarence-street, Sydney.

Manufacturers Re-elected.

At a meeting of the New South Wales Chamber of Manufactures on September 6 Mr. R. A. Marks was re-elected president. Mr. Marks is chairman of directors of the United Nail & Wire Netting Co. Ltd. and managing director of the Protex Safe & Lock Co. Ltd. Mr. H. B. Sevier and Mr. C. V. Potts have been re-elected vice-presidents.

Appointed Managing Director.

In succession to the late Mr. W. J. Newbigin, whose death was recently mentioned in these columns, Mr. D. C. Morrison has been appointed managing director in Sydney of William Adams & Co. Ltd. Mr. Morrison opened in 1911 a branch of his company in Perth, W.A., and managed it until 1921, when he was transferred to Sydney as general sales manager for Australia.

Business Man and Singer.

Mr. W. E. Lewis, of Lewis & Carmichael Ltd., manufacturers' representatives and importers, 277 Clarence-street, Sydney, was, we believe, the first baritone singer to be broadcast in the Commonwealth. For more than four years he has been singing for 2BL. He has a fine robust voice of rare broadcasting quality and his success is due to many years' experience in musical comedy work.

"Wairarapa" Wreck Recalled.

Regarding the late Mr. S. Scott-Young, whose death was mentioned in our last issue, we are now informed that he came to Australia in 1894 as successor in the representation of John Moreton & Co., Wolverhampton, of Mr. William Whaley, who was one of the victims of the wreck of the s.s. "Wairarapa" on the coast of New Zealand. Some years ago the late Mr. Scott-Young helped to put on its feet the Hardware Club in Sydney, and it is not long since his old associates presented him with an illuminated address for his efforts on behalf of that organisation, although by that time it had been disbanded.

Child Endowment Commision.

The Federal Government have appointed a commission of five persons to inquire into and report upon the question of child endowment for the Commonwealth. One of the appointees is Mr. Ivor Evans, who is well known in the hardware trade of Australia, and of New Zealand for that matter. He has been associated with Briscoe & Co. Ltd. for many years and is now managing director of that company in Melbourne.

Mr. Evans recently formed one of a railway party who visited Central Australia, and a report of his impressions of the interior, with a portrait, will be found on another page.

Hardware and Hospital.

A successful ball, arranged by the members of the staff of Nock & Kirby Ltd., took place at the Paddington Town Hall on September 6, the entire proceeds going to the Sydney Hospital. Dancing was not the only entertainment as rooms were set aside for games. The directors paid the expenses and charged the guests a nominal fee. Messrs. Norman Nock and H. Kirby, assisted by the company secretary, Mr. H. Richardson, acted as hosts. The committee included the Misses Lew and Monaghan, Messrs. Richardson, Rafter, Corsellis, Pocock and Sellars.

Successful Dance.

The New South Wales branch of the Australian Association of British Manufacturers and Their Representatives held a dance at the Ambassadors, Sydney, on September 16. The attendance and arrangements were pronounced an unqualified success, the organisation being in the hands of the chairman of the local branch, Mr. C. E. Mayo, assisted by Mr. E. G. Blanshard, secretary of the association, Messrs. Walter A. Cox, W. R. Caithness, E. Trenchard Miller, A. Simpson, Major H. A. Brereton, R. H. Elvy and Cyril Westcott. It is hoped to make the dance an annual event.

C.T.A. President.

Mr. T. Kean, the new president of the South Australian Commercial Travellers' and Warehousemen's Association, is a native of Victoria and 52 years of age. After a short experience of land work, he entered the service of the Vacuum Oil Co. Pty. Ltd., for whom he travelled over part of Australia and New Zealand. It was in their interests that in 1903 he settled in South Australia, where he soon connected himself with the association and eventually became president. Three years of war service followed, and on his return he resumed work with his old firm. Later he joined Adelaide Motors Ltd., but in 1924 commenced business on his own account. Last year the business was sold to Harrisons, Ramsay Pty. Ltd., and Mr. Kean took charge of their oil and belting department, a position he still holds.

Travellers

In Queensland.

Mr. T. W. Heath, of T. W. Heath & Co., 232 Clarence-street, Sydney, will be in Brisbane for a few days from October 23 with the latest ideas in crockery and glassware on behalf of the various manufacturers represented by his firm.

In New Zealand.

Mr. Louis A. Scott, of Danks's Buildings, Pitt-street, Sydney, left for New Zealand on September 23. Starting at Auckland, he intends to spend a fortnight there, and the same period in each of the other large centres where his address is: c/o. The New Zealand Express Co. Ltd.

From Europe.

Mr. Frank S. Black, manager of the New South Wales branch of the British Imperial Oil Co. Ltd., returned to Sydney early in October from a trip abroad. He was accompanied by his wife and son.

Mr. Henry Greenberg, of 212 Clarence-street, Sydney, returned to Australia on September 22 bringing with him the agency for one of the largest crystal glass manufacturing firms in Germany. Accompanied by Mrs. Greenberg, he has visited all the principal countries of the world, returning by way of America.

Baileys Ltd., of 117 York-street, Sydney, represent Lockwood Bros., Sheffield, whose business is now in new hands, although the old name is retained. With the change of ownership has come something like a change of policy. While keeping the quality good prices have been brought into line with those charged by other manufacturers.

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News from Abroad

Shanghai Metal and Hardware Merchants.

The Shanghai Metal and Hardware Merchants' Association was recently organised at 13-4 Seward-road, Shanghai. Fu Siao-an and Hsu Hui-shun were elected honorary directors. Hsiang Ju-sung, chairman; and Li Jun-sheng and Chien Fang-chou, vice-chairmen. The purpose of the association is to foster fellowship among the metal and hardware merchants in Shanghai and to promote trade. It has a membership of 82 shops, representing more than 20,000 persons. The annual membership dues are divided into four classes, namely, 30 dollars, 15 dollars, 8 dollars and 4 dollars.

Canadian Trade With Australia.

Dated Montreal, September 28, the following cablegram has appeared in the Australian press:—"The Minister for Finance (Mr. Robb), in an interview at Edmonton, denied that any changes were contemplated in the trade pact between Canada and Australia. Mr. Robb was discussing suggestions that the anti-dumping law against Australian butter be lifted in Canada. Mr. Robb said that he was satisfied that the treaty attacks were deprecated, and he added that he feared, if they were continued, that Australia might terminate the treaty. Mr. Robb reiterated that the arrangements with Canada were very advantageous to Canada."

Tractors for Rough Country.

Sir Keith Smith, who recently returned to Australia from a trip to Great Britain, has expressed the opinion that Britain was recovering from the industrial depression caused by the war. His own firm—Vickers Ltd.—were busy meeting orders from all over the world, and were also engaged on considerable experimental work.

Of considerable interest to Australia, said Sir Keith Smith, was the development of a wheel and track motor vehicle, designed for rough country. Such vehicles attain a speed of more than forty miles an hour on wheels over good roads and of seventeen miles an hour on tractors. They could also negotiate a 7 ft. ditch or a 30 degree incline with ease. Such vehicles could pass over good roads, bad roads, or no roads at all with equal facility. They were able to go practically anywhere, and were ideally suited to Australian conditions.

The Empire Marketing Board.

Constituted in May, 1926, the Empire Marketing Board, of which the Secretary of State for Dominion Affairs is chairman, has issued its first report. Parliament voted a sum of £500,000 for 1926, and for the present and future years the Government have promised it a grant of £1,000,000 per annum. It was set up in accordance with a recommendation by the Imperial Economic Committee, which expressed the view that the policy of the Board should be to stimulate the marketing in Great Britain, firstly of home produce, and, secondly, of the produce of the Empire overseas.

The work of the Board has fallen into four broad divisions: (a) the making of grants for scientific research into problems of production and marketing; (b) the initiation and development of economic investigation and intelligence; (c) other schemes for the encouragement of production and marketing; (d) a publicity and educational campaign. It is through the lastnamed activity that the public is chiefly acquainted with the work of the Board. Its publicity work has certainly been such as to strike the public eye.

Sheffield Goods in Dominion Markets.

The Sheffield Chamber of Commerce has decided to embark on a big scheme for advertising that city's products. Showcases are to be fitted with articles showing the processes of manufacturing and examples of various commodities, such as cutlery, small tools, drills, and milling cutters. These articles will not bear the name of any manufacturer, but if marked at all will only have on them such words as "Best Sheffield Steel" or other indication of origin, but each case will be accompanied by printed pamphlets containing the names and addresses of all the Sheffield manufacturers. When ready the cases will be submitted to the Senior Trade Commissioner in each dominion by arrangement with the Department of Overseas Trade, and this official will then take steps to ensure that at every important exhibition these showcases will be on view, and inquiries for names of manufacturers will be presented with the printed lists. The Department of Overseas Trade have been consulted on the proposal, and they consider that it will prove invaluable to Sheffield manufacturers. They have offered their heartiest co-operation.

Patent Rights in China.

The following provisional regulations governing the registration of applications from foreign inventors or manufacturers for patent rights in China were recently issued by the Ministry of Agriculture and Commerce and have been brought to the notice of the Diplomatic Corps by the Ministry of Foreign Affairs:—

Article 1. Any foreign subject who has perfected an invention or discovered a new method of manufacture for which a patent right has been obtained from the patent office of his own country or from the Governments of other countries and is still in effect may, pending the promulgation of the Patent Law in this country, apply to this Ministry (the Ministry of Agriculture and Commerce) for registration. Applications for patent rights for such articles as food, drinks, medicines, military supplies and other contraband shall not, however, be considered.

Article 2. The applications must be clearly written on the application forms provided by this Ministry. For reference, every application must be accompanied by a version in a foreign language.

Article 3. The applicant must submit to the Ministry for reference, in addition to the application, the letter patent or a duplicate copy thereof, or a certificate issued by a foreign patent office, together with plans, specifications and a detailed statement concerning the invention or the method of manufacture.

Article 4. Whenever an application is registered by this Ministry, a registration certificate shall be issued to the applicant. This does not, however, confer on the recipient the patent right. But after the promulgation of the Patent Law, the registered applications shall receive preferential consideration.

Article 5. The applicant must pay, in addition to a registration fee of $10 (about 20/-) an application fee of $2 for every article set forth in the application (for patent right). The registration fee shall be returned to the applicant, in case the application is not granted.

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Central Australia

Mr. Ivor Evans, managing director in Melbourne of Briscoe & Co. Ltd., was one of several prominent business men who took part in the recent trip to Central Australia. The journey was an extension of the "Reso" train idea which has proved such a success in Victoria, and was organised, as were the other trips, by the Victorian Railways department.



Mr Ivor Evans
(Courtesy of the "Commercial Traveller")

While some members of the community profess to see in this trip merely a pleasure jaunt, it is evident that the "Resonians" themselves regarded it in a far more thoughtful light. In an interview with a representative of this journal, Mr. Evans said that what they had seen had persuaded them that the popular idea of the interior of Australia as a useless desert was utterly false. Such a view was the result of ignorance, the central part of the continent being practically terra incognita. Since the return of the party, members had been busy removing wrong impressions, and awakening public interest in this remarkable portion of Australia with its resources and possibilities.

The first thing which belied the "useless desert" theory was the condition of sheep and cattle seen on the main stock route. On a track constantly used by drovers, where one expected, as in other parts, to see stock hard pressed for food, were mobs of sheep and cattle, after perhaps five hundred miles of constant travel, sleek and fat. And that in an area where rain had not fallen for five years! This fact alone was sufficient to make the pessimist pause and consider.

The "Reso" party crossed some half-dozen rivers, all dry. But if there was no surface water, there was an ample supply beneath. It almost seemed that Nature, with her law of compensation, provided for the storage of water in the least wasteful way. In a country where the rate of evaporation was from ten to fourteen feet per annum, surface water would be lost within a few weeks. But in the porous soil, during the occasional but heavy "wets," the rain soaked rapidly into the ground, and good water was found everywhere at depths varying from 200 to 1000 feet.

There was no question of the richness of the soil, for at Alice Springs, under irrigation, the place was a veritable garden. As an example, they had celery of better quality than they had ever tasted before. The land only required the application of water, and the problem of settlement was largely that of the most scientific method of irrigation. Transport would probably be most efficiently done by motor power. At present camels were the principal means of conveyance—used both to draw waggons and to carry packs. The freight by camel from Ooodnadatta to Alice Springs, a trip of some hundreds of miles, was £17 per ton, while by motor it was £30, but whereas the latter method took three days, camel transport occupied fourteen days or more.

The party were deeply impressed by the work of the Australian Inland Mission, whose hostels were situated in different parts of the territory. The work of the nurses attached to these stations was beyond all praise. They tended the sick, and were angels of mercy to the afflicted. The "Resonians" raised in all some £300 by auction amongst themselves for the mission, and they take pleasure in the fact that the missioners will long remember their visit.

The aboriginals were a source of interest. They wore no clothing whatever, but used various earths to paint their faces and bodies with most grotesque effect. Feathers, fibres, and other odds and ends were stuck to the skin here and there. The method was to puncture the skin, and as the blood hardened the various scraps adhered firmly where fancied.

The party spent ten days and nights at their camp in the bed of a dry river, where they slept in bags, and during that time not a vestige of cloud was seen. It was winter, and the day temperature was about 90 deg. Fahr. At nights, however, it was cold, and on several occasions the canvas bags which held their water supply were frozen "solid." There was no dew, and the dryness of the atmosphere was absolute. As a consequence there is no stock disease, and the medical member of the "Resonians" expressed the opinion that in that climate tuberculosis would probably be eliminated.

Both Dr. Littlejohn and Mr. Stanley Wilkinson, a dentist, gave their services to the mounted troopers and other white residents, and the former operated for appendicitis on one man who would scarcely have survived had the doctor not been there. As for the dentist, he was in great request, his pathway being "strewn with teeth." Molars that had made life a misery for years were quickly removed with very little pain—to Mr. Wilkinson.

The travelling from the rail head was by fifteen motor cars and three trucks. Day by day the cooks went ahead in the trucks to the evening's camping place, and when the party arrived a hot dinner was invariably ready. The entire catering and organisation was wonderful, said Mr. Evans. Meals were provided which were equal to that of the best hotels. It was a remarkable example of the efficiency of the Victorian Railways authorities. On one occasion the evening's dinner included boiled mutton, with caper sauce. The diners remarked on the quantity of sauce supplied, until it leaked out that as mutton was scarce at the moment the chef had to fall back upon goat, and the sauce had been poured on with liberal hand to cover any possible objections to the flavour. The meat, however, was excellent.

The care of the sheep reminded one of Biblical days. Natives guarded the flocks by day, as the place was infested by dingoes, while at night the sheep were folded. Horses were almost a scourge. They were useless except for the few required by the stockmen, and the food and water they consumed could be ill afforded.

In conclusion, Mr. Evans thought that if only to dispel erroneous views regarding the interior of Australia the tour was well worth while, and each succeeding trip would, he was convinced, still further prove that inland Australia was a country with a great future. At present we are a few people clustered along the more easily cultivated coastlines, but as the years pass, and population increases, we will gradually develop the wonderful land that lies beyond.

To his mind the first task is to investigate the problem of water supply and irrigation, and to demonstrate exactly what the soil is best fitted to produce, so that when practicable settlement can proceed with confidence. This, he thinks, is a task for the Commonwealth Government. The water is there in ample supply seemingly and quite good and the land is capable of luxuriant growth. Its products would not necessarily be those of the south, but others which might prove equally valuable, and add still further to our food resources.

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Interstate General News

Deferred Duties.

Owing to the Australian manufacturers of certain classes of iron and steel hoop plates, sheets, tubes and pipes, chains, cutlery, spoons, forks, sheet glass, and writing and typewriting paper, not being in a position to meet the requirements of Australian users, the Assistant Minister for Trade and Customs (Senator Crawford) has announced that certain duties which were to have come into operation on October 1 have been further deferred until April 1.

Country Store Burned.

On the evening of September 22 the large general store at Manilla, New South Wales, of M. C. Mackenzie & Sons Ltd., was destroyed by fire. A fire sprinkler service checked the flames for a time, and but for the giving out of the water supply the fire brigade would have made a good "save." As it was the building was gutted, the entire loss being estimated at £50,000. With a floor space of about 20,000 square feet, the premises were the most imposing in the town, a town 310 miles north from Sydney.

Employer's Responsibility for Juniors.

On Saturday evening, September 17, the second of a series of lectures arranged by the Christchurch (N.Z.) Hardware Merchants' Association was given by Professor James Shelley, who took as his subject, "The Educational Responsibility of the Employer."

Mr. A. F. Drayton presided over an attendance of about seventy—not nearly so good as at the first lecture. The lecturer was very interesting. He maintained that a great deal of responsibility attached to employers of youths in the adolescent stage from about fourteen to twenty-one years of age. It was the duty of such employers to know something of psychology so that their employees might be put to the work for which they were best suited.

At intervals during the evening songs and orchestral selections were rendered and supper was served at the close.

A hearty vote of thanks was accorded to the lecturer and performers, the chairman intimating that the lecture would be printed for circulation.

Petrol Pump Legislation.

A Government measure now before the Legislative Council of Victoria places under proper municipal control all pumps for supplying motor spirit erected on municipal property. For every pump so installed the owner is to pay an annual license fee of not less than £2/2/- nor more than £10/10/.- The licences are to terminate with the calendar year, and for anything less than a full twelve months licences may be issued on pro rata terms. Pumps can only be erected under such reasonable conditions as the various municipalities may see fit to impose. They must be satisfied that no obstruction of traffic will occur by reason of the erection of any such pump, and it must be installed to their satisfaction. Where any such pump is or becomes an obstruction or offence in any way the owners may be called upon to remove it and repair any damage done thereby to the footpath or roadway. Should they refuse or fail to carry out the work, the municipality concerned may have it done at their expense. Assuming that it becomes law, the measure is to be known as the Petrol Pumps Act, 1927, and is to be read and construed as one with the Local Government Act, 1915.

Trade of the Commonwealth.

The Quarterly Summary of Australian Statistics (June, 1927) gives the value of the principal articles of merchandise imported during the June quarter, 1926 and 1927, and the financial years 1925-26 and 1926-27. Following are the lines of direct interest to our readers:—

	June Quarter.		Year.	
	1926.	1927.	1925-26.	1926-27.
	£	£	£	£
Cordage and Twines (excluding Metal Cordage)	39,827	44,900	215,024	243,105
Fats and Waxes, etc.	82,812	68,587	273,428	270,099
Oils—				
Kerosene	226,076	384,078	921,271	1,262,662
Linseed	31,445	20,091	145,230	80,860
Lubricating (Mineral)	260,764	308,277	942,952	1,156,747
Petroleum Spirit	1,565,512	1,708,986	6,575,519	6,707,351
Turpentine	21,455	22,523	135,586	153,298
Other	265,505	349,065	1,071,523	1,356,921
Electrical Machinery and Appliances—				
Cable and Wire, covered	374,095	334,324	1,433,177	1,679,929
Implements and Machinery (Agricultural, Horticultural, etc.)	97,877	106,951	761,766	727,029
Metal-working Machinery	138,196	141,087	476,974	598,878
Motive-power Machinery (except Electric)	685,823	639,335	2,426,409	2,504,348
Printing Machinery	162,500	150,187	526,324	546,308
Sewing Machines	108,845	133,925	502,985	607,382
Yarn-making and Textile-making Machinery	130,537	128,082	419,103	512,992
Other Machines and Machinery	844,055	899,326	3,379,003	3,689,116
Alloys	60,786	82,891	339,696	380,867
Bolts and Nuts, Rivets & Washers	63,925	72,882	298,265	316,047
Iron and Steel—				
Bars, Rods, Hoop, Ingots, etc.	229,343	532,098	936,915	1,329,038
Beams, Channels, Girders, Joists, etc.	70,809	137,217	356,953	288,398
Pig and Scrap	19,632	20,984	114,469	69,584
Pipes and Tubes	426,680	479,909	1,590,127	1,668,682
Plate and Sheet—				
Galvanised—corrugated	325,949	489,612	1,555,156	1,734,525
Galvanised—flat	104,364	204,960	490,356	580,258
Plain	253,510	500,783	853,877	1,015,943
Tinned	241,804	373,609	1,279,585	1,377,320
Rails, Fishplates, Fishbolts, etc.	123,893	30,050	171,874	81,442
Wire	151,366	125,414	565,061	599,213
Lamps and Lampware	138,450	156,975	528,060	606,335
Plated Ware and Cutlery	162,728	147,953	872,086	987,090
Tools of Trade (not being Machines)	267,078	271,034	1,146,850	1,258,756
Other Metals and Metal Manufactures	1,002,070	1,174,157	4,629,705	4,738,301
Cement (Portland)	17,083	15,564	74,248	65,458
Crockery and other Household Ware	136,271	176,515	740,929	766,152
Glass and Glassware	339,651	274,625	1,277,871	1,307,327
Other Earthenware, Cements, China and Stoneware	96,198	128,151	362,770	478,772
Brushware	114,020	166,051	457,247	601,080
Grand Total	35,466,889	38,523,889	151,638,178	164,744,927

Hardware Amalgamation.

During the month it was intimated that two of the oldest hardware and iron firms in Sydney—Holdsworth, Macpherson & Co. Ltd., and John Keep & Sons Ltd.—were to join forces and trade as one company.

As a firm Holdsworth, Macpherson & Co. date from 1878 but the business goes back to the early twenties of last century, perhaps further still, when Burdekin & Hawley were the proprietors. The successors of that early firm were Alfred Hawley & Co. who were succeeded in turn by Mr. J. Burdekin Holdsworth. On that gentleman's death in 1878 Mr. John Macpherson entered into partnership with Messrs. J. E. and H. W. Holdsworth to form the firm of Holdsworth, Macpherson & Co. The three partners are dead and Mr. W. T. Macpherson, who succeeded to his father's interest, died a com-

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paratively young man in 1922. His partners at that time were Messrs. F. A. and Arthur Hawley, grandsons of the Mr. Alfred Hawley mentioned above, and when some months ago the present company was registered to take over the business the directors were given as Mr. F. A. Hawley, Mr. V. Read and Mr. J. C. Davis, the general manager in Sydney. The nominal capital of the company is £300,000 in £1 shares.

Registered under the Companies Act in 1903, John Keep & Sons Ltd. took over the business founded in 1853 by Mr. John Keep and then carried on under the firm name of John Keep & Sons. The signatories were Mr. John Keep himself and his two sons, Mr. Walter John Keep and Mr. Leonard Keep. All three are now dead, the father since 1905, the older son since 1922 and the younger son since 1924. With the death of Mr. Leonard Keep the third generation took charge of the business, the present directors being Mr. E. F. Keep, a son of the older; and Mr. J. L. Keep, a son of the younger brother, with two of the senior employees, Mr. R. T. Greig and Mr. C. A. Eves. All along the company has been a private or family concern, but in 1920, so it is said, the authorised capital was increased to £250,000.

The directors of the new amalgamated company are to comprise Mr. F. A. Hawley and Mr. J. C. Davis of the one company, with Mr. J. L. Keep, Mr. E. F. Keep and Mr. C. A. Eves of the other.

New Customs Tariff in New Zealand.

On September 13 a new schedule of Customs duties was brought before the House of Representatives by the New Zealand Minister of Customs (Mr. W. Downie Stewart) read a second time and confirmed. Most of the new duties came into force right away, but in several cases the alterations will not take affect until July 1 of next year. In form the new tariff differs from the old in that it only has two columns (1) British preferential and (2) general, whereas the old tariff had three, an intermediate column between these two.

We set out below the changes of most interest to our readers showing the old duty on or position of the item in brackets. Thus to take linoleums with which we begin the position of the item after July 1 will be free from Great Britain and 20 per cent. ad valorem from any other outside countries, whereas the present duties are 20 per cent. British preferential and 35 per cent. general.

Linoleums and rubber matting and rugs, free and 20 per cent. from July 1 next (20 per cent. and 35 per cent.).

Boot soles and heels of rubber, free and 20 per cent. (10 per cent. and 30 per cent.)

Leather bags and leather manufactures, 25 per cent. and 45 per cent. (20 per cent. and 35 per cent.)

Rubber, hot water bags and bottles, free and 20 per cent. from July 1 next (20 per cent. and 35 per cent.)

Earthen or glass roofing tiles, ridging and finials, 25 per cent. (20 per cent.).

Cement and asbestos sheets, roofing slates and tiles free and 15 per cent. from July 1 next (10 per cent. and 20 per cent.).

Plaster pulp sheets and plaster board, 20 per cent. and 40 per cent. (10 per cent. and 20 per cent.).

Earthenware and chinaware for table use free and 20 per cent. from July 1 next (20 per cent. and 35 per cent.)

Adding and computing machines and instruments, accounting and book-keeping machines, cash register machines, and combined adding and typing machines free and 20 per cent. (20 per cent.).

Electric machinery or appliances free and 20 per cent. (free and 10 per cent.).

Electric locomotives, free and 20 per cent.

Wireless broadcasting receiving sets mounted on cabinets, 10 per cent. and 30 per cent. (free and 10 per cent.).

Power driven spray pumps including outfits therefor, free (pumps only free).

Tractors suited for warehouses, wharves, or pavements, free and 10 per cent. (10 per cent. and 35 per cent.)

Brass valves and cocks, hydro-extractors, electric insulators, if of a class made in New Zealand, 25 per cent. and 45 per cent.; not made in New Zealand free and 20 per cent.

Corrugated sheet iron, free and 20 per cent. from July 1 next (2/- per cwt. and 3/- per cwt.)

Brass pipe fittings, 20 per cent. and 35 per cent. (free or dutiable according to the class of pipe for which they were intended.)

Wrought iron screwed pipes over 6in. in internal diameter, free and 20 per cent. (20 per cent. and 35 per cent. unless for casing.).

Metal window sashes or frames, 25 per cent. and 45 per cent. (20 per cent. and 35 per cent.)

Motor vehicles imported with unassembled bodies suited or designed for carrying passengers, 5 per cent. and 10 per cent. on bodies (10 per cent. on first £200 with 5 per cent. on remainder and 15 per cent. on first £200 with 7½ per cent. on remainder).

Unrefined linseed oil in large containers, 9d. and 1/3 per gallon (6d. and 1/- per gallon).

White lead ground in oil, 6/- and 9/- per cwt. (10 per cent. and 20 per cent.).

Paints and varnishes, 20 per cent. and 30 per cent. (15 per cent. and 25 per cent.).

Refined mineral oils, specific gravity .880 (.870).

Laths and shingles, 10 per cent. (2/- per 1000).

Rough-sawn timber in sizes not less than 25ft. in length and having a minimum cross sectional area of not less than 100 sq. in., 3/- per 100 super. ft. (2/- per 100 super. ft.).

Rough sawn timber, other, 5/- per 100 super. ft. (2/- per 100 super. ft.).

Sawn dressed timber, 7/6 per 100 super. ft. (4/- per 100 super. ft.).

Wooden doors, 25 per cent. and 45 per cent. (20 per cent. and 35 per cent.).

Spoon blade oars and sculls, free (20 per cent. and 35 per cent.).

Hardwood poles, dressed or shaped, specially suited for power transmission lines, free (20 per cent. and 35 per cent.).

Cut cork and bungs, free (10 per cent.).

Crown seals, 20 per cent. and 40 per cent. (free and 10 per cent.).

Stained glass windows, free (20 per cent. and 35 per cent.).

Bicycle tyres, 20 per cent. (10 per cent.).

Sheet and plate glass, 20 per cent. (10 per cent.).

Artificers' tools, 20 per cent. (10 per cent.).

Bolts and nuts, 20 per cent. (10 per cent.).

Sewing-machines, 20 per cent. (10 per cent.).

Metal and wood working and similar machinery and appliances, 20 per cent. (10 per cent.).

In the machinery section many items appearing in the old tariff have been omitted, but if these are of a class made in New Zealand they will be subject to 20 per cent. British prefrential and 40 per cent. general tariff. If of a kind not made in New Zealand the Minister of Customs may authorise their admission free from British and on a 20 per cent. ad valorem basis from other countries.

Quite a number of items are left untouched, including rubber tyres for motor vehicles, agricultural implements and machinery, dairying machinery n.e.i., electric lamps, traction engines, iron (bars, rods, channels, tees, and roller girders), metal cordage, iron nails exceeding 1 in., rails and rail fittings for tramways or railways, wire netting, metal, woven wire, and plain metal wire, bicycles and tricycles, vegetable oils other than linseed, fish oils, waxes, basketware and wickerware, brushes and nets and netting.

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Australasian Metal Markets

All prices are quoted for approved brands, duty and over charges included.
For English prices, see The Month's Cablegrams on page 324

Sydney, October 3, 1927.

Trading for September was marked by a distinct falling away of many demands which hitherto have been a pronounced feature of the month's transactions. The dry weather in the country districts looked like the advent of another drought, but at the time of writing we have experienced bounteous rains throughout the State with the exception of the western portion. In view of the absence of demand there are several instances of prices being affected, parcels being offered to encourage trade. Nothing substantial, however, had resulted up to the closing of the books at the end of the month, so that it is considered there should be a revival of trade from now on to the end of the year. Branbags reached a very high figure in comparison with the list last month, but sales were justified, and purchasers had very little opportunity to try the trade out. Heavy lines have retained sufficient interest to be sold at regular trade list, and while no large parcels were reported it was considered a fair month. Corrugated sheets had attention, and although the purchases recorded were substantial, it is thought there is sufficient stock on hand to cover demands for some time. Resin and turpentine sold at reduced prices due to heavy supplies on hand, but the indent position remains firm. Tinplates were in demand from stock in small quantities, and stocks which are coming to hand will not affect the position very much. Indent parcels have been booked for some months ahead, as buyers wanted assurance of shipments. Fairly large shipments have arrived of white lead making the position easier. English linseed oil is well held, but stocks to arrive are selling at firm prices. Shellac sold at list prices to several merchant houses. There was a run on whiting, which made the price firm, and stocks are not heavy. Imported Diamond plaster was short in stock, and while several quotations were submitted from shipments to arrive, the quantities were not heavy. Small suburban storekeepers have had a quiet month, and cash transactions show a smaller trade generally, yet the position does not warrant any concern. All indications are favourable for a good period between the present time and the end of the year.

Christchurch, September 20, 1927.

With the advent of spring and the demand for spring requisites, hardware merchants report better business than was recently secured, although the position is very far from normal. The building trade shows signs of renewed activity, but the absence of loan money at a low figure is retarding any speculation in building just at present. With a few individual exceptions, the Government's new tariff proposals have aroused neither elation nor dejection here, the general feeling being that commercial circles are not affected to any considerable extent. Relief was given in some cases and added protection to British industries in others. A notable exception is the motor body trade, which does not receive the measure of protection that had been anticipated. One Christchurch concern reported that as a result it was dismissing 35 men and cancelling by cable orders for material of a value of over £1000, besides also cancelling an order for £200 of Southland timber. The consensus of opinion is that the depression in local business, so evident during the past year, has lifted. "We have a long way to go before conditions are back to normal, but we are on the way. Prosperity in the primary industries is the only factor which will hasten the return of happy trade," so said a leading merchant. But hardware dealers are less optimistic. During the past three months trade has slackened, they say, rather than otherwise. If the Government would help the primary producer and curtail its own expenditure, some improvement might reasonably be expected. Great activity prevails on the site of the new railway workshops at Addington, where forty men are now employed by the contractors, Wm. McLennan Ltd., in painting the steel work in preparation for erection. The sub-contractors, the Dunedin Engineering Co., have twenty men working on the steel frame with pneumatic riveters placing together roof-trusses and heavy steel girders. A compressed-air plant has been installed to facilitate this work, with pipes leading to the forges used for heating the rivets. The actual work of erecting the workshops should be commenced next week. The basic price for wire nails is 22/6 per cwt. for 4 x 7. White lead of best quality is down to 60/ per cwt., while pig lead has dropped to 37/6, and sheet lead to 45/ per cwt.

NEW ZEALAND PRICES.

	Duty.	Auckland. Aug. 20	C'church Sept. 20	Dunedin, Sept. 16	Wellington Sept 23
IRON—					
Bar—		£	£	£	£
English ..	Free	21	22/	22/	24
Shoeing ...	,,	23	23/	20/	25
Steel ...	,,	15/10 to 21/-	20	22/	17/6 to 24/
Pig	,,	8	10/6	10/6	9/- to 10/-
Plate ...	,,	21 10/	24/	25/	24/6
Hoop ...	,,	24/, 35/	25/6, 37/6	32/	33
Sheet, Blk. ...	,,				
to 20-g. ...		23 10/, 24 10/	25/6	26/	24/6 to 26/6
22 & 24 g.		25 10/	28/6	28/	26/6
Galv. Cor.—	2/-				
First ...		29	31/Builders	31/	30
Second ...	,,	28	29/- ,,	29/	29
Local ...	—	29	...	...	...
Do., Plain	Free		...		
24 & 26 g.		31/, 32/	31/, 33/	35, 37, 39	29
Pipe—Galv.	Free	45%	42½% off	42½	40% off
,, Black	,,	50%	47½% off	50% off	50% off
Wire—	,,				
Galvd. ...	,,	16, 18	18/	16/6	17/6 to 18/6
Black ...		16/6	17/	15/6	
Barbed ...	,,	21, 23 10/	24/-	21/	22/ to 23/
Nails ...	2/4/- c	20/6	22/6	21 10/ to 23	22
,, N Z.		20/6	...		22
Lead—Pig	Free	32/6	37/6	48/	35
,, Sheet	,,	38 10/	45/	60	42½
,, Shot	10/-	75/	75/	80/	75/
Tin—Ingot	Free	3/3	3/3	3/2	3/5
,, Plates	,,	32/6, 48/6	40/	40/	37/6
Zinc—Sheet	,,	7½d. lb.	9d. lb.	8¼d.	8¼d
Quicksilver	—	...	6/6 lb	...	...
Cement—					
Imported	1/-cwt.	...	22/6 cask	...	...
Local bag	—	5/8	7/-	6/	5/11
Slates ,,	Free	,,	...	...	...
P. of Paris ...	,,	27/6	30/-	26/6	27/6
White Lead	10%a.v.				
Best ...	—	57/	60/	63/	65/ to 66/
Second ...	—	56/		...	64
Blst. Powder	Free	1/8	1/9	1/7	1/8
Rope— ...	20%				
Manila, Star	—	111/	111/	111/	111/
,, O. ...	—	107/	107/	107/	107/
Flax, N.Z. ...	—	81/, 88/	88/	88/	88/
Co nsacks ...	Free				
44-in. ...	—	...	...	12/11	13/6
46-in. ...	—	...	14/9	12/3	13/9
48-in. ...	—	15/	15/	12/10	14/
Woolpacks ...					
Full ...	Free	5/3	5/3	4/4	5/3
Oils—					
Lins'd. raw	6d.	5/3	N.Z.5/- Eng 5/3	5/3	5/6
Castor ...	Free	5/-	5/6	5/6	5/6
Colza ...	,,	7/9	8/	8/-	7/9
Kerosene	,,	14/9	14/9	14/9	14/9
Turpentine	,,	6/6	7/-	6/6	6/6

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Dunedin, September 16, 1927.

The cold and damp weather prevailing since last advice seems to have taken off at last giving outside workers an opportunity of resuming operations and improving matters all round. A sanguine spirit for the future is apparent, and several large building jobs are likely to be put in hand. The Railway Workshops are now completed and those employees who are specially adapted for the sectional work in connection with this branch of railway construction are being selected and placed. The electrification of the line to Port Chalmers is being strongly advocated together with that of the outgoing suburbs of the City and will no doubt be carried out in the near future. The new tariff just issued is being criticised adversely in some quarters, and is expected to have an adverse effect upon certain branches of business. Values show little change. Bar and sheet iron are as at last advice, but galvanised corrugated is down to 31/- for first and 29/- for second. In the rope section Manila "Star" is placed on the lower quotation of 111/-, and "O" at 102/-. With these exceptions all else on the price list are maintaining last month's quotations.

Wellington, September 23, 1927.

Now that we are well into the spring and the dairy season has made a good start, business is improving all round. Owing to favourable weather conditions, dairying has made an early start, and price prospects appear bright. Prospects for wool and meat are also very satisfactory, so a good export season seems assured. This will bring a revival of trade all round, and altogether the outlook for the future is much brighter. Tariff changes have not affected the hardware trade very much. Wall boards are 2/- to 2/6 dearer on account of higher duty, and larger demand is keeping stocks very low. After January 1 next dumping duty will be imposed on Indian pig iron, to prevent flooding this market at low prices. Prices of all metal goods are keeping steady, and stocks are generally adequate. All iron goods are in good supply and prices keep steady. Lead is unchanged, but outside prices are weaker. Nails are plentiful and prices unchanged. Fencing wire has much better sale, and stocks are adequate with prices keeping steady. Other metals are unaltered. Oils are keeping steady with turpentine a little lower. White lead is steady at present, but lead being low it may come down later.

Brisbane, September 29, 1927.

September has proved a most unsettled and unsatisfactory month to the hardware trade. The railway strike completely dislocated business in the early part, and when this had been adjusted, the outlook was so dry and unpromising that storekeepers and other buyers reduced their orders to a minimum, and then only for bare necessities. Heavy hardware is quiet, and the demand below normal both for town and country. Prices generally are unchanged, and stocks plentiful in all lines. Carbide had a spasmodic demand from the country when the prospect of a strike became evident, but orders have since eased considerably. Shelf goods are slow, and the market prices are very unsettled owing to a quantity of insolvent stock floating about, and the tightness of the money market, causing merchants to cut prices in order to induce business. The building trade is steady, and there are some large brick and concrete buildings in course of erection within the metropolitan area. Supplies are plentiful. Cement was in short supply during the strike, together with stone for the new Town Hall, but stocks of both are now available. Paints and oils are very slow, and the painting trade has been quiet. Prices of lead and oils have eased a little, but the reduction has not been taken advantage of owing no doubt to the tightness of money. Sanitary plumbing has been steady, and the demand for material and accessories has been maintained. Prices of lead products have eased £2 per ton during the month. Galvanised iron has eased since last report, but the demand is moderate, and only small orders are reported from country centres. Stocks are on the heavy side. Woolpacks have eased a little, but are moving nicely although the quantities are much below that of the corresponding period of former years. This is directly attributable to the depletion of flocks through the severe droughts experienced in Queensland during the past two years. Stocks are ample. Bran bags are very lightly stocked, and cornsacks also, merchants hesitating to stock up heavily owing to the unfavourable prospects. At time of writing, however, good rains are reported over a large area, improving the outlook for wheatgrower and merchant alike.

Adelaide, October 1, 1927.

At this centre business has shown little or no improvement during the period under review. With the rainfall well below the average, conditions continued remarkably dry, and prospects for the wheat crop were by no means bright. As forecasted, several of the Broken Hill mines closed down on account of the low prices for lead. A severe and unseasonable frost caused consternation along the Murray, and potato and tomato growers near the city also suffered. All were reflected in the volume of hardware trade transacted at Adelaide. At time of writing, however, very welcome rain is falling throughout the wheat belt, and although light, the falls have come at a critical time and have changed the whole outlook for the coming season. Fortunately the damage to the orchardists has not turned out so disastrous as was at first anticipated, although it is expected that Government aid will have to be forthcoming. It is confidently anticipated that the coming month will show an increased turnover in hardware business here. Prices have not fluctuated to any extent, and there has been very little inter-house business of any importance transacted. Metal prices continue to drop. Lead closed at £20 11/3, and ingot tin opened at £289 and closed at £266.

Melbourne, October 3, 1927.

It is a long time since the trade in metals and hardware passed through so slack a period as has been experienced here during the last month or two. The reason usually given is that the exceptionally dry season has reacted upon the market, causing depression, with a disinclination to buy beyond the needs of the moment. While this is doubtless true, especially as regards fencing materials, it is significant that overseas reports are to the effect that the metal trades in Britain are extremely quiet, buyers refusing to look ahead. Wire netting and fencing wire moved slowly. The recent rains in many parts of Victoria are, however, expected to stimulate sales. Parcels of five miles of netting, 42 x 1½ x 17, fetched £41/15/-, while 42 x 1½ x 18 was purchased at £40 10/-, and 42 x 1¼ x 17 at £49. There were few handlings of other sizes. Galvanised wire, No. 8, found buyers here and there at £16/15/-, in five and ten-ton parcels; No. 10 at £17/15/-; and No. 9 at £17/5/-. Local factories were in the market for steel and iron to a moderate extent. Sales observed were round mild steel, ½ in., 10 tons at £16/10/-; 25 tons steel bars, assorted round and flats, £16 basis; 10 tons girder plates, 10 x 12 x ⅝ in., £18; while one or two offerings of ⅞ in. round mild steel went at £17. There was a decided downward tendency in prices for this class of material. Black steel sheets were accepted at £22 for assorted 12 and 14 gauges, and a parcel of 5 tons of black hoops, 4 x ⅛, at £19. Plain galvanised sheets were lower in price. For lots of 10 cases 6 x 36 x 26 the ruling figure was £28/5/-. During the month ingot tin was sold at declining

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rates, the buyer paying variously £289, £285, and £280 per ton at the end of the month. Of iron pipes, the few parcels offered were taken at 55 per cent. off list. Sizes bought were generally from ½ to 1in., in quantities ranging from 5000 to 10,000 ft. Other lines of interest were Plumb's axes, which were quitted in 20-case lots, 4 to 5 lb., at 93/6, and wire nails, which went at the nominal price of 20/-. The competiton among makers of nails would appear to continue. There were instances where they were offered at £17/10/- basis. Building materials were not greatly in request. Cement is being produced in larger quantity than can be absorbed at the present, and public works account for a majority of sales. House-building operations are largely at a standstill in suburban Melbourne, due, it is believed, to tightening up by the financial institutions. Banks are calling in overdrafts, the reasen given being the necessity for underwriting the conversion loan at the end of the year. Linseed oils are weak, and quotations for white and red lead in oil have declined. The competition in paints of all kinds is increasing, a dozen or more small concerns being engaged in the making of these lines in addition to the more important manufacturers.

The Month's Cablegrams

Copper, Tin, and Silver.—The following table shows the quotations at the undermentioned dates, compared with those of the corresponding periods last year:—

	Copper. Electrolytic. Per Ton.		Tin. Standard. Per Ton.		Silver. Standard. Per Ounce.	
Date.	1926	1927.	1926.	1927.	1926.	1927
	£	£	£ s. d.	£ s. d.	d.	d.
Aug. 30..	67–67½	62–62½	294 13 9	289 5 0	28⅝	25½
Sept. 2..	67–67⅛	62–62½	295 12 6	289 2 6	28¾	25 7/16
,, 9..	66¾–67½	61¾–62½	302 12 6	289 12 6	28¼	25 7/16
,, 16..	66½–67	62½–62⅝	306 12 6	285 7 6	28⅛	25⅜
,, 23..	66–66½	61½–62	307 12 6	270 18 9	28	25⅜
,, 30..	66¼–66½	61–61⅛	313 15 0	266 7 6	27	25⅜
Oct. 4..	66¼–66¾	61¾–62½	317 15 0	269 7 6	26 11/16	25 11/16

The stocks of tin in the United Kingdom at the end of August were 13,725 tons, the deliveries for the month 1735 tons, the quantity on spot 797 tons, and the quantity afloat 1860 tons.

Lead.—In the London market soft foreign lead on spot has been quoted as follows:—September 2, £22 7/6; September 9, £21/7/6; September 16, £21/16/3; September 23. £21/2/6; September 30, £20/11/3; October 4, £20/5/-.

For the month of August the imports of lead into the United Kingdom were 22,535 tons, including 8302 tons from Australia. The exports were 1362 tons.

Spelter.—The spot quotations for spelter, as cabled from London, have run as follows:—September 2. £27/6/3; September 9, £27/5/-; September 16, £27/15/-; September 23, £27/2/6; September 30, £27/7/6; October 4, £26/12/6.

Tallow.—Following are the statistics for September and particulars of the latest auction sales:—

September	Casks.	Date.	Casks Offered	Casks Sold.	Mutton, Med., per cwt.	Beef Med per. cwt
Imports	1345	Sept. 7	1382	1188	34/-	33/6
Deliveries	3163	,, 14	1381	632	34/-	33/6
Stock	8766	,, 21	1709	424	34/-	33/6
		,, 28	1050	344	33/6	33/-

Sale of Goodwill

(From "Stubb's Weekly Gazette.")

While every business man knows what is meant by "goodwill," he might have a little difficulty in giving a very precise definition of the term. Lawyers have experienced the same trouble in considering what it connotes, but they have with fair accuracy explained the expression as meaning "the benefit arising from connection and reputation," and "the probability of the old customers going to the new business." Goodwill is that somewhat intangible thing which may mean much or little in business according to circumstances. Its importance, of course, becomes specially evident on the dissolution of a partnership and the consequent disposal of its business, although, of course, it is not limited to partnerships. On the sale of a business, and in the absence of express stipulation to the contrary, A might sell the goodwill of his business to B, and the following day A might open a shop in the same line next door to B, although A may not canvass those who dealt with him previously. He may do business with anyone who comes to him, even with his old customers, if they voluntarily come to him, but he may not circularise them. In one case it was said: "You shall not actively solicit your old customers who become mine, to come to you, whether they have or have not come to buy goods from the new firm." The principle so stated was affirmed by the House of Lords in Trego v. Hunt (1896), A.C.7, where it was definitely established that a person who sells the goodwill of his business and receives the purchase money cannot afterwards destroy that which he has sold by soliciting his former customers. But the decision did not go further and prohibit the setting up of a competitive business if unaccompanied by canvassing the old customers. If a purchaser requires such a prohibition he must see that he gets it in express terms.

In the development of the law of goodwill several questions have arisen as to the extent to which the decision of Trego v. Hunt (supra) applies. Thus, in Green & Sons (Northampton) Ltd. v. Morris (1914) 1 Ch. 562, where the trustee for the benefit of creditors, sold the business, which had been carried on by the firm who executed the deed of assignment, with the goodwill thereof, to the plaintiffs. Thereafter the person who had executed the deed solicited the customers of the old firm, and the question was whether he could be restrained from so doing. Mr. Justice Warrington there said; "There is no question as to the general principle that if a man sells the goodwill of his business to a purchaer, and receives the purchase money, he cannot afterwards destroy that which he has sold by soliciting his old customers. But that principle has never been extended to any case except that of a sale or of some contract equivalent to a sale; and in particular . . . did not apply to the case of a sale not by the man who was carrying on the business, but by his trustee in bankruptcy. . . . I think that . . . it is impossible to find any rational distinction between the case of a man who becomes a bankrupt on his own petition and has lost his property, which has become vested in his trustee in bankruptcy, and that of a man who brings about the same result by executing a deed of assignment of his property for the benefit of his creditors. . . . A man, by divesting himself of his property under such circumstances as those in this case, does not thereby constitute the relation of vendor and purchaser between himself and the ultimate purchaser of the property." The learned judge accordingly held that the man who executed the deed of assignment could not be restrained from soliciting the customers of the late firm.

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Australian Market Prices

N.B.—The prices given in these columns are mostly those at which wholesale merchants are prepared to supply ordinary parcels to storekeepers, or other retail dealers. In a few cases we give the quotations of manufacturers or their agents. Preference as well as general duties are shown in the "Duty" column. The first rate is that on goods from the United Kingdom, and the second is the general rate on goods from foreign countries. "F" represents free, and "F 10%" free from the United Kingdom and 10% from other countries.

	Duty	Sydney Oct. 3	Melbourne Oct. 3	Adelaide Oct. 1	Brisbane Sept. 29
Pig Iron	20/. 40/	£	£	£	£
British		...	7 5/	7 10/	...
Swedish			...	...	...
Lithgow		7 10/	7 5/	...	...
Newcastle		7 10/	7 5/	7 10/	...
Bar and Rod	44/, 120/	23 basis	English 21	21	22/10 basis
Australian		...	18/6	17 10/	...
Mild Steel	44/. 120/				
Bar		19 10/basis	19/ basis	18 10	18
Angles		19 10/	18	19	19
Tees		21	18	20 10	20
Hoops	F., 10%				
Black		20 basis	19 basis	19/6	21/ basis
Galv.		31/6 basis	35	33/6	31 10/
Galv. Corr. 24g.	20/. 60/	30/]	29 10/	28 15/	
Orb 26 g		27	30	30 15/	27 5/
"		28 10/	30		28 15/
Adams Mars		...	...	...	...
Phoenix Cr.		29 15/	30	28 15/	28 15/
Galv. Plain 24g.	20/, 60/	30/]			
Queen's Hd.		29/	31	31 15/	29
Phoenix Cr.		31 5/	33	...	...
Fleur-de-lis		28 10/	...	31 5/	28 15/
Other		...	30	...	40
Sheet	F., 125/				
Black		27 basis	25 basis	26	26
Baldwins		B26, G34 5/	26 10/	...	19
Plate	F., 120/	basis			
Steel		18 basis	15 basis	15	15 10/
Girder		19/6	21	19	20/-
Fencing Wire	F., 120/				
American 8		18 5/	18 5/	..	..
" 10		19 5/	19 5/	..	...
Austra'n 8 Bl.		15 12/6	15	15 10/	15/10
" 10 "		16 12/6	15 10/	16	16/10
Galv. 8		17 17/6	14 10/	17 10/	18
" 10		18 17/6	15 10/	18	19
" 12		20 2/6	18 10/	20	20
Barbed Wire,	68/, 180/				
Amern. 12-g.		24	...	...	25 10/
" 14-g.		25 10/	...	...	26 10/
Austn. 12-g.		24 10/	22 10/	24	25 10/
" 13-g.			23 10/	25	26 10/
" 14-g.		26	24 10/	26 10/	26 10/
Wire Netting	F., 200/				
36 x 1½ x 17	per. ton		36 15/	28	
36 x 1½ x 18			29	50	New
42 x 1½ x 17			49 10/	...	List
42 x 1½ x 17		22½% to	41 10/	42	
42 x 1½ x 18		25%	34	33 10	
36 x 1½ x 17		off	35	...	10 to 15%
36 x 1½ x 18		list	28		Off List
36 x 2 x 18			22 10/	23	20%
36 x 2 x 19			20	20 15/	Off List
Nails—					
Horshoe	12/, 15/	List	to 1/lb.	1/ less 10%	List Price
" Austn.		...	List	...	plus 5%
Wire	5/6, 8/				
" Austn.	or25%,35%	28/6 basis	18/ to 20/	24/6 to 35/	30/- basis
Roofing—	5/6, 8/			...	
Evenden		74/6 cwt.	65/cwt., 9/6	9/-	11/
Lead-head		...	...	...	44/
Block Tin	Free	271	280	288	3/
Tin Plates,					
28 x 20—	F., 10%				
I.C. Coke	28 x 20	112's 60/-	50/	112's 52/6	27/
I.X. Coke	56s	35/-	70/	...	42/
Pig Lead	Free				
Austn.		25/6	42	32/	37/10
Sheet Lead	10%, 20%	41/	50	43/6	50/
Dampcourse					
2 lb.		4½" 7/-	48		
3 lb.		4½" 10 6	47		
Lead Pipe—	10%, 20%				
½ to 2in. coils		46/	47 10/	49 10/	60/
Lengths to 5'		4" /	52	52	61/
Compo ¾" & up		51/	51	51 15/	73/
Copper—					
Ingots		...	70	78/	10d.
Sheet	25%, 40%	1/6	1/7	1/8	1/8
Brass					
Sheet	25%, 40%	1/3	1/2 to 1/6	1/6	1/6

	Duty	Sydney Oct. 3	Melbourne Oct. 3	Adelaide Oct. 1	Brisbane Sept. 29
Zinc—		£	£	£	£
Sheet 9 to 18g	25,% 40%				
(7 x 3 & 8 x 3)		60/	62 10/ to 65	67/	65/ cwt.
Perforated	35%, 45%	4/9	7	...	5/6
Spelter	10%, 20%	32	...	54/	...
" Elec....		301/10/to 37	41 to 42	...	40/
" Brazing	25%, 40%	1/9	1/5	...	1/9
Bolts & Nuts—		¾" 1"	¾ ½ ⅜		
Cuphead 3"		75/, 59/	63/ 47/ 41/		
" 4"	35%, 50%	76/, 57/	61/ 46/ 39/	...	26/3 to 73/
" 5"		70/, 54/	56/ 43/ 37/		
" 6"		65/, 49/	52/ 39/ 35/		
" 6½" to 9"		61/, 47/	49/ 38/ 34/		
" 9½" to 12"		59/, 45/	47/ 36/ 32/		
Tanks, 400-gal.	Free	7	4 15/		5
" 200-gal.		3 10/	2 5/		3
Tubing—	F., 10%				
Black, up to 3"		55 off list	55% off	58½off	List 45% off
" 3½ & up	27½		60% off	35 off	. 5% on
Galv. up to 3"		50 "	45% off	46½off	.. 35% off
" 3½ & up	27½	...	tst. List	20 off	Less 5% off
Steam, up to 3"		40 "	37½% off	37½off	.. 5% on
" 3½ & up	27½	...	5% off	20 off	.. 25% off
Wr'ght boil.		...	10% on	...	.. 15% on
Explosives—	F., 5%				5/
Hall's C.C.	10%	1/-	10½d.	1/-	1/1
Curtis's		10½d	10½d.	11½	1/
Chilworth's		10½d.	10½d.	...	1/1
Sporting	15%, 25%	3/6, 4/6	2/9 to 4/6	3/6 to 4/11	3/6 to 5/
Diam. S'less		10/	8/ to 8/6	8/3 to 8/6	5/
Amberite		8/6	7/ to 7/6	6/9 to 7/6	75/
Blast'g Gel.	F. 5%	72/6	74/6	74/6	78/6
Gel. Dyna.		65/	66/	66/	71/-
Gelignite		56/ to 59/3	56/ to 59/3	54/6 to 58/6	62/ to 65/
Dynamite		51/ to 57	51/ to 57/	46/6 to 51/6	...
Detonators	15%, 25%	55/	55 to 60/	60/ to 85/	58/ to 102/
Shot—Chilled	5/, 6/	63/6	61	75/	90/
Australian		61/	56	...	...
Cyanide Pot.	Free	1/4	1/6	...	1/6
Quicksilver	Free	7/6	5/	5/8	10/-
Sash Weights	35%, 45%	16/	22/6	16/6	18/6
Sheep Shears	F., 10%	62/6	62/6	60/	60
Cement—Impt'd	20%, 30%	25/ cask	21/	22/6	21/ cask
Aust. (bags)		...	17/6	7/4	6/6 bag
Plaster, Imp.	1/6, 2/c	37/6 K.W.	35/	47/6	50/ cask
" Aust.		Pixie 35/-	8/	9/3	18/ bag
Slates (20 x 10)	30%, 40%				
White Lead—	8/, 10/, or				
Imported	25%, 30%	63/	65/	71/6	67/
Australian		57/	60/	62/	6/3
Zinc White	20%, 30%	...	70 to 100	...	70/, to 89/
Oils—					Colonial 56/
Linseed (raw)	9d., 1/		Drs.,		
Imported		R5/6	5/6	Drs., 5/9	4/9
Australian		C4/11 D5/11	C., 5/-	Drs., 5/6	4/7
Colza	6d., 8d.				
Burning		...	6/-	...	
Castor—	9d., 1/				
½-cases		C 6/3	6/3	7/	7/9
China	2s., 2/6	...	8/	...	...
Cotton seed	6d., 8d.	..	8/6 to 10/	...	10/
Kero.—C.O.R.	Free	...	13/	...	...
Laurel		13/	13/6 to 14/6	13/	13/6
Light of Age		13/	13/6 to 14/6	13/6	13/6
Pennant		13/	13/6 to 14/6	13/	13/6
Turpentine	F.,	5/6	5/9	6/-	6/-
Substitutes	½d., 1d.	3/	18/ per case	...	2/9
Shellac		3/3	2/9	2/8	2/9
Whiting—	6d., 9d.				
English		9/	9/-	9 10/	£12 ton lots
Colonial		4/9	5/-	5/	...
Resin, G grade	Free	38/6	36/-	36/	37/6
Carbide—	80/, 150/				
"I X L"		32/6	27/6	29 5/	29, 7/6
Scandinavian		34/-	30/-	33 10/	33
Canadian			...	...	...
Japanese		...	...	...	...
Bluestone—	100/, 200/	...			
Macclesfield		37/6	37/6	...	40/
Australian		36(1 cwt c/s)	...	37/6	...
Japanese		...	...		
Stock. Tar, 42 g.	25%, 35%		1/5	...	
Woolpacks—	Free	...		...	...
42 x 11½		...	6/	5/9	...
54 x 11½		4/2	4/6	4/9	4/9
Cornsacks—	Free				
2¾ lbs. (Oats)		...		...	...
2¼ lbs		10/7½	11/6	11/6	13/-
Branbags	Free	13/-	9/-	8/6	10/7

Small buyers requiring credit for broken parcels must expect to pay more than prices here quoted.

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Business Register

If you correct them monthly by these pages you will have lists more up-to-date than any Directory. Some leading firms do this.

New South Wales

Mr. Louis A. Scott, manufacturers' representative, has moved from 200 Castlereagh-street, Sydney, to Dank's Buildings, Pitt-street. The new showrooms are spacious and well lighted, permitting the goods to be shown to the best advantage.

Firms Registered.

Guest's Cash and Carry, grocers and hardware merchants, Brent-street, Boggabri; proprietor: Leslie Guest.

Automatic Electric Heater Co., manufacturers and importers of electrical heaters, 27 King-street, Sydney; proprietor: James E. Smith.

Palmer & Son, general storekeepers, Stanford Merthyr; proprietors: David Palmer and Alfred Palmer.

Radial Saucepan Co., manufacturers of cooking utensils, Daily Telegraph Building, King-street, Sydney; proprietor: John P. Mason.

Working Man's Tool Store, Rawson Chambers, Rawson-place, Sydney; proprietor: Albert Abeshouse.

Company News.

Snows (Canberra) Ltd., have been registered with a capital of £10,000 in £1 shares. Objects: To carry on the business of ironmongers, drapers, haberdashers, manufacturers, etc. Subscribers: Eli R. Snow, Ilote Snow, Ilote G. Snow, Harld G. Sisson, George A. Crommelin, Reta Mann and Eric G. Elrington. Reg. office: Civic Centre, Canberra.

K.F.B. Foundry Ltd., have been registered with a capital of £250,000 in £1 shares. Objects: To acquire the business of the K.F.B. Foundry Ltd., and to carry into effect a certain agreement. Subscribers: Sydney Snow, Norman H. B. Keysor, Henry L. Spring, Robert A. Spring, Joseph P. Wiatt, L. Wright and Ernest A. Lawrence. Reg. office: 310 Pitt-street, Sydney.

W. T. Weeks Ltd. have been registered with a capital of £50,000 in £1 shares. Objects: To acquire the business of manufacturers of leather and fibre goods now carried on at Marrickville by William T. Weeks, also to acquire certain lands and premises at Marrickville, the property of Louisa E. Weeks. Subscribers: William T. Weeks, Louisa E. Weeks, Arthur E. Bramwell, Alexander Marshall, Harold Lockman, Dulcie I. Lockman and William T. McBride. Reg. office: Marrickville.

Metters Ltd. have submitted an interim report for the half-year ended July 31 last. A dividend at the rate of 10 per cent. per annum has been declared. In order to give effect to the intention previously indicated of vesting the management and control of Metters Ltd., in General Industries Ltd., it has been found necessary to alter the articles of association of Metters Ltd., and for this purpose a special meeting of shareholders has been called. Particulars of the alterations accompany the report.

Grimley Ltd. report reduced earnings during the transition from one form of trade to another. The following sentences from the annual report sufficiently indicate this change and its result so far:—"For half a century the business has been identified with the vehicle trade. When motor traction became sufficiently developed to threaten seriously the horse traction our obvious policy was to get to the motor accessory business, and so the chairman advised, but it was ultimately decided to invest in other enterprises, which have proved unprofitable." The company are now affiliated with Butler Bros. (Aust.) Ltd., of Brisbane, from which source a sum of £4500 was received in dividends.

New Zealand

Company News.

Bunnythorpe Stores Ltd. have been registered with a capital of £6000 in £1 shares. Objects: To carry on the business of general storekeepers and incidental. Subscribers: J. Scheidt and Anna Scheidt. Reg. office: Bunnythorpe.

Bird's Patents Ltd. have been registered with a capital of £2000 in £1 shares. Objects: Ironfounders and incidental. Subscribers: R. F. Moore, B. Trathen, A. G. Nightingale, C. Young, F. Bird, D. B. Hutton, and R. I. Fleming.

Triggs & Denton (Wellington) Ltd. have been registered with a capital of £1500 in £1 shares. Objects: To carry on the business of manufacturers, importers, and general dealers in travelling requisites, leather goods, ironmongery and general incidental. Subscribers: W. H. Denton and L. W. F. Wiren. Reg. office: 226 Lambton Quay, Wellington.

Hill's Open China Warehouse Ltd. have been registered with a capital of £4500 in £1 shares. Objects: To acquire and continue the business carried on by Leonard Alexander Hill at Wellington, as importers, indentors, buyers, sellers and dealers in china, glassware and general incidental. Subscribers: L. A. Hill, Mary Simmonds, and E. W. Hunt. Reg. office: 69-71 Victoria-street, Wellington.

Queensland

Firms Registered.

Corbett & Stokes, general storekeepers, The Summit; proprietors: Percy A. Corbett and Walter W. Stokes.

A. C. Black Stores, general storekeepers, Burleigh Heads; proprietors: Margaret A. W. Exton, Alexander C. Black and Rose E. Black.

Henry Shaw, ironmonger, Edward-street, Brisbane; proprietors: Henry Shaw, Annie E. Shaw, Henry W. Shaw, and Vera A. Shaw.

Brisbane Steel Ornamental Works, iron and steel constructors, Princess and Main-streets, Kangaroo Point, Brisbane; proprietors: to Burchardt and George Friedrich.

Company News.

Fosters Ltd. have been registered with a capital of £6000 in £1 shares. Objects: To purchase the business of ironmongers, etc., carried on by John Foster & Son, and to carry on all or any of the businesses of silk mercers, cloth manufacturers, furriers, haberdashers, hosiers, manufacturers, importers and wholesale and retail dealers of and in the textile fabrics of all kinds, etc. Subscribers: John Foster, Arthur H. Foster, Fanny E. Foster, Florence G. Foster, John H. Foster, Margaret A. Foster, and George F. Foster. Reg. office: Lower Mary-street, Gympie.

South Australia

Latus & Co., brass and iron founders, Albermarle-street, West Hindmarsh, announce that Elizabeth Latus has retired and Arthur David Latus has become a member of the firm.

Union Can Co., canister makers, Leadenhall-street, Port Adelaide, announce that George Gardner, S. W. Gillett, and R. G. Gardner have retired and that the Union Can Co. Pty. Ltd., South Melbourne, has become a member of the firm.

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Firms Registered.

Finlay & Hercus, storekeepers, Cockburn; proprietors: Arthur Roy Finlay and William Hercus.

J. B. Lawrence & Co., builders, plumbers and hardware suppliers, 64 Currie-street, Adelaide; proprietor: Charles Laurence Eckhold.

Company News.

Clarkson Ltd. made a net profit of £15,648 for the past year, which is a good deal more than in either of the two previous years. During the year the capital was increased by the issue of 51,855 ordinary shares of £1 each. The branch in Perth, W.A., is doing well.

Colton, Palmer & Preston Ltd., made a net profit of £35,409 for the year to June 30 last. The usual dividend on the first and second preference shares absorbs £12,345, and a further £18,000 is divided among ordinary shareholders at the rate of 10 per cent. per annum.

Harris, Scarfe Ltd. made a net profit of £96,634 for the year ended June 30 last. Dividends of 6 per cent. on preference and of 7 per cent. on ordinary shares absorb £87.825, a sum of £10.000 is added to reserves, and a further sum of £7000 to doubtful debts account, leaving £4760 to be carried forward. The paid-up capital of the company is £1,283,213.

Victoria

The A. A. Phœnix Co., engineers' furnishers and manufacturers' agents, 493-95 Collins-street, Melbourne, were recently registered under the Firms Act as successors to Alfred Adams & Co. Pty. Ltd. That company went into voluntary liquidation, and Mr. Alfred Adams is the proprietor of the new concern, which will handle engineering and steam users' supplies exclusively. In a special announcement to the trade the new firm notify that ample resources are available for the new business.

Company News.

Hecla Electrics Pty. Ltd. have removed to their new works at 696-710 Chapel-street, South Yarra.

Mayne & Holbery Pty. Ltd., announce that the capital of the company has been reduced from £60,000 to £52.216.

Globe Art Metal Co. Pty. Ltd. have been registered with a capital of £5000 in £1 shares. Subscribers: Ellen Frances Panlook and Thomas Moore. Reg. office: 548 Little Bourke-street, Melbourne.

Johns & Waygood Ltd. are increasing their nominal capital from £150,000 to £300,000. A sum of £45,834 representing undivided profits is to be capitalised, the holders of 137,500 issued shares to receive one fully-paid bonus share for each three of their present holdings, thus increasing the paid-up capital to £183,334.

W. King's Successors Pty. Ltd. have been registered with a capital of £15,000 in £1 shares. Objects: To acquire as a going concern the business of hardware merchants from James Milton Mackie. Subscribers: James Milton Mackie and John Edwards. Reg. office: 111-112 Hardware-street, Melbourne.

Miller's Weathered Iron Co. (Victoria) Pty. Ltd. have been registered with a capital of £10,000 in £1 shares. Subscribers: Harold Venables and George Robert Bennett. James Mitchell, Thomas M. Scott, Harry Alfred Wainwright, Andrew Augustine Miller and Henry Gregory Brice are also directors. Reg. office: Hardware-street, Melbourne.

J. R. Bristow Pty. Ltd., engineers, sheet metal workers, etc., have been registered with a capital of £20,000 in £1 shares. Objects: To acquire as a going concern the business carried on by John Richard Bristow. Subscribers: John Richard Bristow and Ella Rosina Bristow. Reg. office: 369 Glenhuntly-road, Caulfield.

Cheetham & White Pty. Ltd., agents for overseas manufacturers of tools, hardware, etc., have been registered with a capital of £5000 in £1 shares. Objects: To acquire the business of Cheetham & White. Subscribers: John Alexander Gillespie, Leslie Montague White, and Steven Thomas. Reg. office: 366 Bourke-street, Melbourne.

All Electrical Manufacturing Co. Pty. Ltd. have been registered with a capital of £2000 in £1 shares. Objects: To acquire from Allan Neil Albert Padgham his process for the manufacture of metal articles and designs for electric fittings. Subscribers: Alan Neil, Albert Padgham, Clifton John Baker and Charles William Ross. Reg. office: 366 Bourke-street, Melbourne.

Western Australia

Firms Registered.

G. F. Best Co., makers of patented tubular steel farm requisites, 228 Hay-street, Subiaco; proprietors: Robert Arthur, Roy Morton, and William John Andrew.

Sheffield Supply Co., cutlery importers and vendors, Wellington Buildings, William and Wellington streets, 2nd Floor, Room 28, Perth; proprietors: David Julius Davis.

Motor Driven Hand Grinder and Buffer.

The Cincinnati Electrical Tool Co., of Cincinnati, Ohio, U.S.A., have recently introduced a more powerful universal hand grinder and buffer designated as Model N.S.U.

The machine is equipped with a ¾ h.p. motor and carries a 6 x 1 in. wheel operating at a speed of 3,600 r.p.m. Although heavy in construction the weight of the machine is only one pound more than that of the ½ h.p. model.

The tool is of full ball-bearing construction and spiral gears of ample size and heat-treated are used throughout. The armature pinion is removable, being screwed into the armature shaft and all gears run in grease.

An enclosed patented switch is located in the handle and has a trigger under immediate control of the operator. The wheel guard is both longitudinally and radially adjustable. The total weight of the machine is 24 lb.

Shear-Pin Coupling.

The Brown Engineering Co., of 123 N. Third-street, Reading, Pa., U.S.A., offer a positive type shear-pin coupling which tests show will break within 10 per cent. of the rated load.

The pin is made of an electric-furnace bronze of special composition. In order to avoid partial shearing under normal load, the maximum stress is localised by means of the sharp V groove. Besides localising the stress the notch gives a permanent clearance between the flanges. When the pin breaks the coupling case on one of the flanges is free to slip axially thus allowing the broken ends to pass each other. The ends cannot possibly pry loose as the enlarged mid-shoulders are held against positive seats by the nuts on the outer ends of the pin. This construction also allows easy replacement of the broken shear pins.

It is made in twenty sizes to suit shafts ranging from 1 to 11 in. in diameter to transmit loads ranging from 1 h.p. at 4,200 r.p.m. up to 1,500 h.p. at 540 r.p.m. Standard shear-pins can also be obtained.

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Machinery

Hand-Power Elevator.

A small hand-power elevating device has recently been marketed by the Lewis-Shephard Co., of Watertown Station, Boston, Mass., U.S.A.

It is intended for lifting heavy articles to any desired position, in which they can be retained by the fastening of the lifting device.

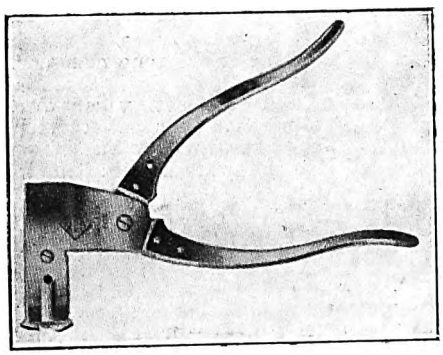
New Wrench Set.

The Armstrong Bros. Tool Co., of 317 N. Francisco-avenue, Chicago, Ill., U.S.A., recently placed on the market a new wrench set known as the Armstrong No. 26. The set comprises six Armstrong-Vanadium wrenches in a leatherette roll, the openings of the heads varying from $\frac{3}{8}$ to 1 in. by sixteenths.

The wrenches are drop-forged from a special chrome-vanadium steel, heat-treated and finished in nickel over copper. The deep set jaws are thin and narrow so that they can be manipulated in close quarters. They are guaranteed not to break or spread.

Cotter Pin Extractors.

The Burgan Corporation, of 9 S. Clinton-street, Chicago, Ill., U.S.A., are marketing a new cotter pin extractor, made in two sizes. The smaller is used for pins up to $\frac{3}{8}$ in., and the larger for pins up to $\frac{1}{4}$ in. Both models are compact in design, are parkerized and polished, and are very useful in their respective classes of work.



To use the appliance one jaw is inserted in the eye of the cotter and the handles are pressed together.

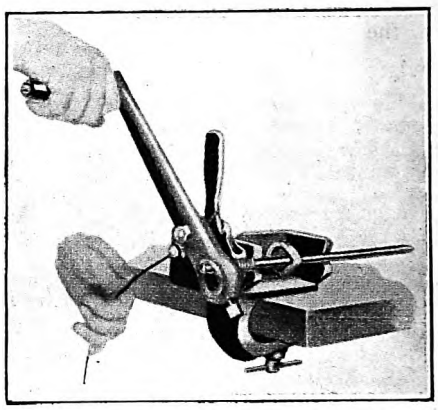
"Forged-Cast" Gears.

The Hill Clutch Machine & Foundry Co., of Breakwater-avenue, Cleveland, Ohio, U.S.A., has put forward a gear design using a forged ring in which the teeth are cut and a semi-steel hub. The construction is simply an angular forged ring in which is cast a hub either with web or arms, depending on the dimensions. After casting, the completed gear is finish machined and the teeth cut. The forged ring is made of tough steel and it is claimed that sound homogeneous teeth result. The junction of the steel rim and the semi-steel centre is a laminated weld of steel and iron and the finished gear is one integral piece.

The thickness of the rim is proportioned to the teeth. Any height of tooth or width of face can be cut. The hubs have both ends faced and are taper key-seated. Gear pin hubs, special bolting lugs and other unusual features can be applied to this type of gear.

Spring Winder.

The Fostoria Screw Co., of Fostoria, Ohio, U.S.A., have put forward a spring winder with which it is



claimed that any coil spring ranging from $\frac{1}{8}$ to $1\frac{1}{4}$ in. in diameter and using any wire up to $\frac{9}{16}$ in. diameter can be wound in a few minutes. The coil may be of any length and pitch, either right or left hand, and of either the expansion or compression type.

The size of the spring depends upon the size of the mandrel, while a tapered cam determines the pitch. One mandrel, $\frac{7}{16}$ in. in diameter, and a wrench are supplied with the machine.

Car Washing Plant.

The Rosebery Engine Works Ltd. are placing on the market an electrically operated motor car washing plant, designed and constructed at their works in Dunning-avenue, Waterloo, Sydney. Primarily intended for motor service stations, this machine should also appeal to concerns employing several motor lorries, while it is quite within the requirements of individual motor car owners. The pumps and a two h.p. Parkinson motor are compactly mounted on a channel iron base as is also an adjustable acting cylinder 2 x 5 in. diameter. The machine has a capacity of six gallons per minute, the pressure being adjustable from 50 to 300 lb. per sq. in.

Two Edgell pistols of somewhat ingenious construction are furnished with each machine, and this is so designed that neither spray nozzles, guns nor rods are necessary, yet delivery can be varied instantly by adjustment of the nozzles. The cut-off is positive, and the flow of water is regulated automatically by the degree of pressure on the lever. The pistol is readily adjustable for delivering a penetrating spray or forceful straight jet. Two operators can work at the same time on either one or two cars, efficiency depending upon an ample supply of water at high pressure, and although city mains are usualy at from 20 to 30 lb. to the inch, this machine will deliver it at 225 lb. pressure with the two hoses fully open. Each machine is equipped with suction hose in one unit and one or two lines of hose fitted with the Edgell patent adjustable pistol. For instalment, it is only necessary to obtain two oil drums, a few feet of piping, and make a small concrete bed on which to set the plant.

Carr & Elliott, of 204 Clarence-street, Sydney, are the Australian representatives for the makers of this machine.

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Paint-Spraying Outfit.

The Alexander Milburn Co., of 1416 W. Baltimore-street, Baltimore, Md., U.S.A., are marketing a new paint-sprayer known as the Milburn Type E.1. syphon feed outfit. This outfit, with which the type E gun is furnished, is adaptable to a wide range of uses, such as the painting and lacquering of motor cars and furniture.

It will work efficiently using anything from heavy anti-corrosive paint to a very thin lacquer. The gun can be adjusted for touching up, shading and high-lighting if desired. The ordinary garage air compressor affords a sufficient volume of air to operate the outfit.

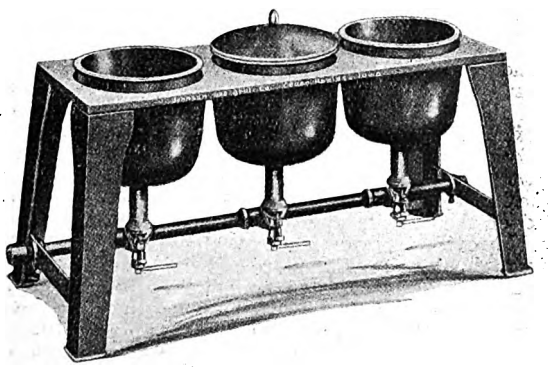
It is claimed that the atomisation of the spray is so fine and even that the "orange peel" effect is eliminated. The atomized spray is surrounded by an air pocket that lessens the loss of material by confining the spray to the work. An air purifier, which is essential for good results, is provided. The air, after entering, passes through a series of double baffles which extract moisture and other impurities.

The outfit consists of the Milburn Type E gun with quart container, air conditioner, air regulator and 25 ft. of air hose with the necessary connections. It is ready for operation when connected to an air line.

New Melting Furnace.

The Johnson Gas Appliance Co., of Cedar Rapids, Iowa, U.S.A., have designed a new melting furnace known as the No. 2C.

It consists of three melting pots, heavily constructed of cast iron, with suitable lids. Any soft metal can be melted in these pots. Each pot has a separate direct-jet burner with shut off valve and pilot light. These burners are known as Johnson No. 5 type A bunsens, and each has a gas consumption of 15 cubic ft. per hour. Each pot is 6 in. in diam. by 4½ in. deep.



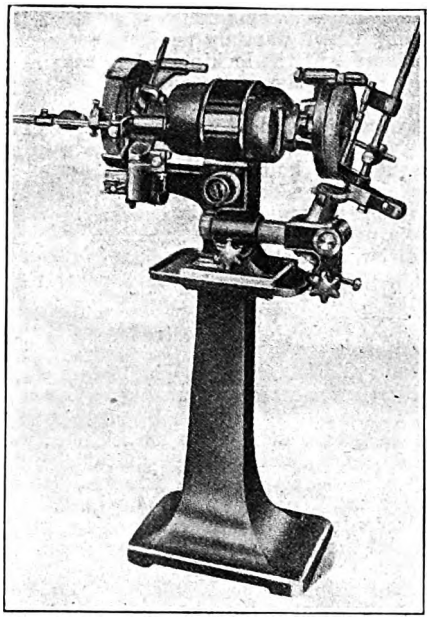
The unit occupies a floor space of 25 x 9 in. with an overall height of 16 in. It has a total weight of 90 lb. crated.

Combination Tap and Drill Grinder.

The Gallmeyer & Livingstone Co., of Grand Rapids, Mich., U.S.A., are manufacturing a combination twist drill and tap grinder known as the "Grand Rapids," four sizes, comprising the complete range. Either belt or integral motor drive is obtainable.

The style 10a machine is for drills ranging from No. 52 to 5/4 in., and taps from No. 6 to 1¼ in.; style 10B is for drills from ⅛ to 1½ in., and taps from No. 6 to 1½ in.; style 20B has a capacity for drills ranging from ⅛ to 1½ in., and for taps from ⅜ to 3 in., while style 20C is for drills from ¼ to 2½ in., and a tap capacity of ⅜ to 3 in.

With this machine drills can be sharpened quickly and conveniently, as there are no adjustments to get out of order in normal service. It is only necessary to adjust the tailstock to accommodate different lengths of drills being ground. No adjustment of lip rest is required, and no adjustments are required for varying diameters, whether straight or taper shank.



By means of a patented holder stop that works in connection with a diamond trueing device, the drill is placed in the correct position with relation to the grinding wheel, and it is impossible to get the holder so close as to damage the lip rest.

The tap grinding device is for grinding the taper at the end of the tap, and the clearance back of the cutting edge thus formed. This taper may be long as in nut taps, short as in plug taps, or negligible length as in bottoming taps. The convex clearance provided is in the form of an arc struck from a point on a radius laid out at a predetermined angle in relation to the radius of the cutting face of the flute. Taps sharpened in this manner will cut with half the power required for hand-sharpened taps.

Both sides of this machine are equipped with diamond wheel-trueing mechanism. In the case of the Nos. 10A and 10B machines, two types of wheel trueing mechanism are furnished, one for trueing the periphery of the tap-grinding wheel, and the other for trueing the face of the drill grinding wheel. In the case of the Nos. 20B and 20C machines, both wheels are cup-shaped, and the diamond trueing device is arranged for keeping the face of the wheel on which the grinding is done in proper shape. Diamonds of approximately half carat are furnished for each wheel.

In the electric motor-driven types the motor forms part of the grinder proper. The wheels are mounted direct on the armature shaft, and the special motor end belts have heavy ring-oiled, phosphor-bronze bearings. With the belt-driven models an overhead countershaft is supplied.

Each of the four models occupies a floor space of 2 x 3½ ft. The spindle speed in each case is 1600 r.p.m., and the wheel diameters are 8½ and 10 in. The weights of the belt-driven models are 385 lb. for the small and 400 lb. for the large sizes. The motor-driven models weigh 50 lbs. more in each case.

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New Locknut.

The American Locknut Co., of Longview, Wash., U.S.A., are marketing a new locknut, known as the "Lafever," and intended for use wherever vibration is present. It consists of a standard hexagonal nut countersunk on the underside to accommodate a soft copper ring, which partialy projects from the nut.

The principle of the locking action is that the copper flows into all the space around the recess in the nut, and between the threads of the nut and bolt, where it hardens owing to the work performed upon it. The surplus copper is forced into any available space around the bolt in the hole in the machine frame, preventing side motion of the bolt. The copper is under pressure until the nut is backed off, when it is destroyed.

In addition to locking, this copper piece forms a metal gasket that is steam and watertight, and noncorrosive.

Welding Electrode.

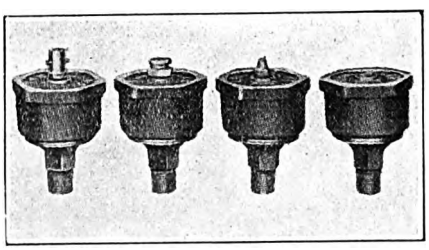
The General Electric Co., of Bridgeport, Conn., U.S.A., have introduced an improved type of welding electrode, known as G.E. Type F. It is said to combine the characteristics of a fluxed electrode with the quality of a lead finish and the cleanliness in handling of a base welding electrode. It is recommended for the general welding of steel.

The electrode has a uniform flowing quality, and it is claimed that it does not sputter or spatter, with the result that more material is deposited with the same consumption of electrode per kilowatt-hour. The electrode penetrates quickly and produces a weld of high tensile strength and unusual ductility and elongation.

It is furnished with $\frac{3}{32}$, $\frac{1}{8}$, $\frac{5}{32}$, $\frac{7}{16}$, and $\frac{1}{4}$ in. sizes. The standard package is 50 lb. burlapped. It is also furnished in steel reels weighing 200 lb., or in coils of slightly less weight.

New Grease Cap.

The Link Belt Co., of 910 South Michigan-avenue, Chicago, Ill., U.S.A., have announced a line of "hex-top" malleable iron compression grease cups with alemite or zerk fittings. As the name implies, these cups are of hexagon shape so as to offer an easy purchase for any type of wrench and also a good grip for hand turning.



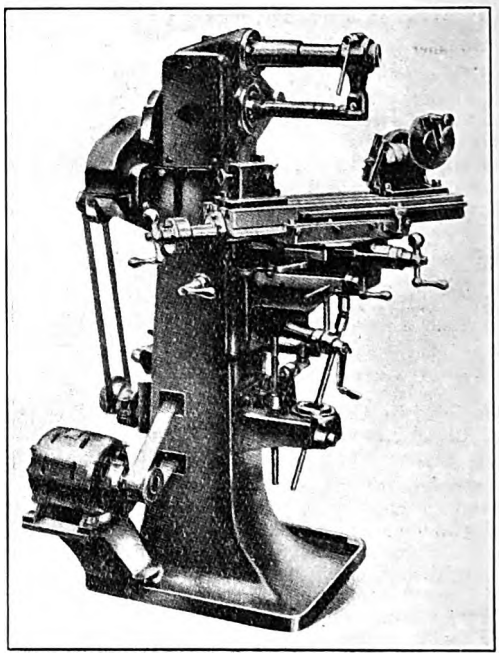
The feature of this line is the alemite fitting. A grease gun is applied to the fitting when the cap is turned up, so that a good reserve of grease is stored for future use. An occasional slight screwing down by hand or wrench is all that is necessary until the cap needs refilling.

This type of cap is particularly recommended for inaccessible places.

Universal Milling Machine.

The Artisan Manufacturing Co., of 864 Hathaway-street, Cincinnatti, Ohio, U.S.A., have recently placed on the market a small universal milling machine, known as the No. 0, incorporating several novel features for a machine of this size. It has a table travel of 14 in., a cross travel of 5 in., and a knee elevation of 11 in.

The machine has a self-contained counter-shaft provided with a single friction pulley, which also serves as a brake. When the machine is driven by belt, power is transmitted directly through the friction pulley from the line shaft. When motor driven, a $\frac{1}{2}$ h.p. motor is mounted on a housed bracket on the column base. The motor belt passes through openings in the column to the friction clutch pulley. The clutch and brake are controlled by a convenient handle so that the operator is enabled to control the spindle from his working position.



A 3-step cone pulley carrying a $\frac{1}{2}$ in. belt is attached to the countershaft and transmits its power to another cone pulley on the jackshaft. This jackshaft is offset from the spindle and runs on bronze bearings. A sliding back gear, intermediate of the jackshaft and spindle, provides six spindle speeds of 21, 39½, 74½, 141, 266 and 500 r.p.m. respectively. The back-gear ratio is 6.7 to 1. A feed-gear in the end of the spindle operates through a reverse-plate and provides power-feed to the table in either direction. The reverse-plate has change gears which, together with the 3-step cone pulley, permits six feeds ranging from 0.00075 to 0.024 in. per spindle revolution. The feed belt drives a lower feed-cone and swings in a bracket to take up belt slack. On the other end of the shaft on which the feed-cone is mounted is a steel worm that engages a worm wheel through which a feed shaft passes. This shaft is universally driven within the worm-wheel and the upper half of the universal joint is provided with a snap socket so that it can be readily attached for driving either the table or the cross-feed.

In the illustration the cross-feed is in use and an adjustable dog on a bar located below the saddle automatically tips this feed in either direction. The saddle is square-gibbed with narrow guide-ways and has a tapered gib.

The table has a working surface of 6 x 18 in., and can be swivelled to a 45 deg. angle. Self-locking micrometer dials graduated in thousands are provided for the table, saddle and knee adjustments.

The machine has been designed for tool-room and light manufacturing work. The power crossfeed is said to make it particularly valuable for jig boring. Regular equipment includes an overarm, a $\frac{7}{8}$ in. arbor and necessary wrenches. The machine without the motor weighs 650 lb.

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Commonwealth Tariff Decisions

The following decisions of more or less interest to the hardware trade have been made during September. By way of explanation it should be mentioned that the double number on the left of each entry represents the tariff decision number, while the number to the immediate right is the tariff item, and the date following (25/1/26, and so on) the date on or from which the new decision took or takes effect:—

Machinery, Machines, etc.—

27/731 T.D. 27/262 and By-law No. 154, having reference to High Pressure Blowers of the "Roots" pattern, are to be amended by deleting therefrom the words "in direct transit to Australia on 11th April, 1927," and substituting therefor the following:—"on firm order on 11th April, 1927, and which are entered for home consumption on or before 31st December, 1927." (By-law No. 486.) .. ..

Machinery, Machines, etc.—

27/734 Motors, electric, not exceeding ⅛ h.p., imported with and for use with Adding and Computing Machines. (By-law No. 482—Electrical.) 174 25/1/26

Mandrels—

27/740 Sheradised Steel, Tube, circular, exceeding 30 inches in diameter (external). 415a (2) 2/5/27

Sherardised Steel, Tube, straight, exceeding 30 inches in length. (By-law No. 493.) 415a (2)

Pipes and Tubes (Metal)—

27/741 Manganese Bronze Tubes, open joint, for use in the manufacture of Bearings, Bushings, and Seatings, under security. (By-law No. 489.) 404 19/7/27

Sheaves—

27/742 Metal, containing steel balls, for use as runners or rollers on sliding doors of cupboards, show cases and the like. 208a 3/9/27

Cycles, Motor Cycles, etc.—

27/747 Footrests for Motor Cycles, imported separately—

For pillion seat riders, whether plated or enamelled or not. 352 (a)

Not plated or enamelled, excepting for pillion seat riders. 351 (a) 12/9/27

Plated or enamelled .. .. 352(a)

Note.—The reference "Footrests, for Motor Cycles," in "Guide," page 81, is to be cancelled.

Irons—

27/756 Soldering, Self-heating, fitted with blow lamp, soldering-butt and flame guard—

Blow Lamp portion (as a Plumber's Blow Lamp) 219

Flame Guard 190

Soldering Iron (detachable) 190 12/9/27

Spirit Tray (as part of the Blow Lamp) 219

Attachment for supporting the Iron and holding the Spirit Burner (as part of the Blow Lamp) 219

Note.—T.D. 24/308 is to be cancelled.

Machinery, Machines, etc.—

27/760 Matching Machines (Wood-working) 176(f) 12/9/27

Note.—The reference to Matching Machines,, double-end, for tonguing and grooving the ends of boards, in Consolidated By-laws, page 26, and in By-law No. 25, and T.D. 25/628, are to be cancelled, but any such Matching Machines as were in direct transit to Australia on 12/9/27 may be admitted under Tariff Item 174. (By-law No. 505.)

Cycles, Motor Cycles, etc.—

27/772 Mudguards, Cycle, Celluloid Complete with enamelled metal stays and leather straps. 352(a) 15/8/27

With or without unenamelled metal fittings. 351(a)

Note.—T.D. 27/647 is to be cancelled.

Electrical Appliances and Materials—

27/774 Switches, rotary, for use in the manufacture of Electric Heating and Cooking Appliances, under security. (By-law No. 526.) 404 19/9/27

Machinery, Machines, etc.—

27/779 Alarms, fire, spring motor mechanisms for (under security).—The reference thereto in "Guide," page 182, is to be cancelled in view of the decision set out in T.D. '25/657. .. ..

Machinery, Machines, etc.—

27/788 Header Reapers, Parts of, viz.:— 404 8/8/27

Bolts, Cylinder Front Cover
Gaskets, Cylinder Head Water Connexion
Gaskets, Manifold
Glands, Manifold
Nuts, Clutch Driven Drum
Nuts, Commutator Lock
Nuts, Vaporiser to Cylinder Stud
for use in the manufacture of Header Reapers (under security). (By-law No. 528.)

Machinery, Machines, etc.—

27/789 Lathes— 174 8/6/627

Handle, Automatic. (By-law No. 522—Wood-working.)

27/796 **Deferred Duties (Deferment Notice No. 28)—**

The operation of the deferred duties under the undermentioned Tariff Items has been further postponed to the date shown respectively opposite each Item:—

Item 136 (f). Iron and Steel—Hoop .. 1/4/28

This further postponement does not apply to Iron and Steel—Hoop, one-eighth of an inch in thickness, of the following widths, viz.:—1 in., 1⅛ in., 1 3/16 in., 1¼ in., 1 5/16 in., 1⅜ in., 1 7/16 in., 1½ in., 1⅝ in., 1¾ in., 1⅞ in., and 2 in., for which see T.D. 23/748.

Item 136 (f) (2). Iron and Steel—Hoop n.e.i. (Proposed Customs Tariff (No. 3) 1926). .. 1/4/28

Item 147. Iron and Steel, viz.:—Plates and Sheets, plain tinned. .. 1/4/28

Item 152 (a). Iron and Steel Tubes or Pipes (except riveted, cast, close-jointed or cycle tubes or pipes) not more than 3 in. internal diameter; Iron and Steel Boiler Tubes. .. 1/4/28

Item 194 (d). Chain, n.e.i., not made up into serviceable articles. .. 1/4/28

This further postponement does not apply, however, to Brass and Copper Chain (curb and trace pattern) made from wire of ½ mm. to 3 mm. in thickness, both sizes inclusive, for which see T.D. 26/564.

Item 197 (b). Cutlery, Spoons, and Forks, n.e.i.; and Knife Sharpeners. .. 1/4/28

Item 242 (b). Glass, viz.:—Sheet, Plain Clear. .. 1/4/28

Gramaphones, Phonographs, etc.—

27/799 Diaphragms, Mica, for use in the manufacture of Sound Boxes for Gramaphones, Phonographs, and other Talking Machines. (By-law No. 541.) 404 11/2/27

Note.—T.D. 26/239 is to be cancelled.

Oils—

27/810 For use in the first filling of Transformers, other than X-Ray Transformers, of 88,000 volts capacity and over, under security. (By-law No. 544.) 415a (1) 10/5/27

Pipes and Tubes—

27/812 T.D. 27/669, and By-law No. 443, having reference to Tubing, Steel, etc., for use in the manufacture of Vacuum Cleaner Systems and Pneumatic Tube Systems, are to be amended to operate on and from 29/1/27. (By-law No. 548.) .. ..

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Pottery and Glassware

Buyers' Notes for Retail Dealers

Sydney

Bakewell Bros. Ltd., of Coulson-street, Erskineville, Sydney, now produce an extensive range of earthenware goods. Sets of squat ice chests to meet the new demand are made in various colours, the favourite having blue and white bands. Sets of six household jars, lettered in black, make a pleasing addition to the kitchen utensils. Five piece toilet sets are supplied in different shapes and colourings, and a feature worthy of note is that spares are always in stock, enabling replacements to be made at any time. A novel idea is a decorated vase on a brick fashioned pillar, the whole standing 3 ft. high, for use in cemeteries. A panel is left on the pillar for lettering.

Tankard jugs in blue, brown, or green are of good quality at low cost. Teapots are well finished, special treatment giving them a brilliant appearance and making them practically imperishable. Vases are in beautifully blended colours. New season's toilet ware is being shown in delicate shades of pinks and blues, and marked at competitive prices. Rustic jardinieres are prominent, and vases are supplied in all colours and in sizes ranging from the smallest to the very largest.

The majolica glaze introduced by the manufacturers some time ago has caught the public fancy, and jardinieres in various mottles are noteworthy. Mottled pillars to match the jardinieres are also supplied. Tall jardinieres of attractive shape and vases with ornamental handles in line with the shoulder are made plain and mottled. Jardinieres are shaded on a white ground, with floral decorations and gold border. Casseroles of a capacity of 2, 3, and 4 pints are made in brown glazing, and equipped with "ear" handles. The new Langley ware includes jugs, teapots, and vases, as well as ornamented teasets for children. Household ware covers dark and light iridescent bowls, lamp globes, hand lamps, bird cage drinking fountains, and similar useful articles.

Brandt Bros. Ltd., of 236 Pitt-street, Sydney, are making a big display this year of the "Pyrex" transparent ovenware. Included in the stocks are utensils in new shapes and styles, porridge and soup servers in groups of four, on trays, are available with lids and ear handles. Individual servers are also supplied, all being cup shaped. Rounded stewpots and individual bakers are also on hand, as well as round shaped and oblong custard cups. Eared dishes for fish are offered in attractive shapes.

Briscoe & Co., Ltd., of 383-85 Kent-street, Sydney, one of the distributors for the Edinburgh and Leith Flint Glass Works, are showing cut crystal glass ware of remarkable brilliance and attractive design. Deeply incised and with a glass holder, a rose bowl shows evidence of tasteful workmanship. A puff bowl and perfume should make an acceptable present for milady's toilet table at the Christmas season, by reason of its unusual shape and artistic incisions.

Jugs and goblets are to be seen in glittering array, as are jardinieres, vases, and fruit bowls. Rose bowls in different colours are encircled at the top with floral designs, while jardinieres are in a variety of colours and shapes. Porcelain vases are daintily made, and attract the eye by the simplicity of their shape. New are the vases with ebonite handles, and a pleasing combination of gilt and various colours. Flat shaped vases also help to add to the attractiveness of the display.

For the children money boxes in the shape of animals and human heads should make appropriate gifts. Three piece block sets in porcelain are tastefully decorated, and English teapots are to be had in fancy and gilt decorations. Children's sets include a plate and cup and saucer, decorated in a way that should appeal to the childish eye, and have been specially selected for the Christmas trade.

A very fine assortment of salad sets attracts attention, and fruit sets are made for different tastes in China, porcelain, and glassware. Glass serviette rings are tastefully cut, and cruet sets and vases are made in the same material. Novelty salt and pepper shakers in the shape of birds and animals are said to be coming into favour, and they are now on view in great variety.

Self colour water sets and others lavishly decorated make a wide appeal. Dutch shaped water jugs are said to be finding favour. Some of those on view are in litho gilt, very nicely shaded, and prettily bordered at the top. Smaller jugs are in sets of three and five.

Cut crystal sets with goblets and tumblers to match are to be seen side by side with lower-priced blown jugs. The Rosalene coloured glass comes in the form of vases, salad sets, rose bowls, and so forth, fluted on a mould.

John Danks & Son Pty. Ltd., of 324-30 Pitt-street, Sydney, carry stocks of the Dutch Goudenware, in which the blending of the tones and colours is artistically done. Plaques, vases, and candlesticks are shown.

Italian alabaster ornaments include table sets, puff boxes, and similar articles. Table clocks in the same material are in wide asortment as to colour, shape, and size.

Uncommon and dainty are Indian made marble plaques, inlaid with flowers in mother-o'-pearl.

Prominent in the display is a range of Chinese vases and incense burners in brass, boldly embellished with dragons and other fantastic designs so characteristic of that country.

A line of vases from Continental makers attracts attention, some being exceptionally large and others artistically shaped. For the most part they are heavily stamped with representations of fruit and flowers, and by way of contrast a gracefully finished Grecian model, clear of ornamentation, is a noteworthy part of the exhibit. Another is finished in silver, and it also is an artistic and beautiful production.

Fruit baskets are lavishly and appropriately stamped and finished in the latest designs. Lined with cut glass containers, they carry embossed handles.

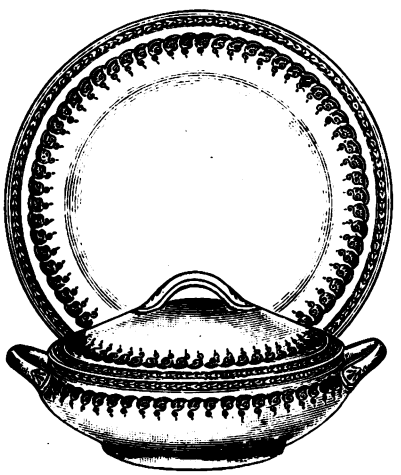
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Clocks make an imposing array. Selling at a low figure are the 400-day clocks in glass cases, with a radium dial and showing the actual workings. Another favourite line is in art metal, some of the faces being in red and others in blue enamel, with a gold border. Small alabaster clocks make a dainty and useful ornament for the bedroom table. They are in a variety of colours and shapes.

John Dynon & Sons Ltd., of 93 Bathurst-street, Sydney, are well stocked with high quality chinaware, as well as some of the lower-priced variety.

Noticeable are Pautney's English Bristol dinner sets, complete in every detail, and daintly finished. One line in particular is quietly embellished in blue and gold, relieved at intervals with representations of a fruit basket. Tea sets are supplied to match in every case.

Very striking is the "Melba" bone china teaware, supplied in 21 pieces. The sets include five inch



plates, breakfast cups, bread and butter plates, egg cups, and butter plates.

The Samuel Radford Crown chinaware was specially selected by Mr. Dynon. Some of the lines on view are decorated inside and outside the cups, and all are tastefully and artistically finished. One set that stands out prominently is finished in powdered blue, said to be the most difficult colour to produce by the potter. Another line bears small medallions, with burnished gold handles, and the same glittering embellishment around the cup.

A consignment of Fleming's crystal glassware makes a very fine display. The crystal is exceptionally clear, and of extraordinary brilliance.

Children's ware, from Czechoslovakia, comes in small case lots, containing an assortment of ten lines. The sets include cup and saucer, plate, bowl, sweets dish, milk holder, and so on.

Wedgwood's fruit plates strike a new note. Octagonal in shape, they are unlike the ordinary domestic article, being almost flat, with a small white circle in the centre, and the rest blue, red, or other colour.

The Australian-made Rosaline and Citron glassware covers a wide assortment of vases, cake dishes, fruit stands, rose bowls, sugars, and creams, and similar lines.

A wide range is shown of badge goods for clubs, hotels, cafes, and sporting bodies. Made on a vitrified stone body, the ware is said to be most durable, and well suited for public dining rooms.

Doulton float bowls are varied as to colour and shape. Special lines of American candy jars for show purposes are fitted with ground stoppers, thus being air tight.

A very low-priced line is on view in the way of red stalk vases, made specially for fitting in the racks now a feature of newly erected homes. In new sets of jugs and goblets a shadow seems to pass over the fluid, giving the effect of an optical illusion.

W. S. Friend & Co., of 113 York-street, Sydney, are showing new designs in crystal glass mounted on silver. There are also lower priced lines similarly finished. China bowls are decorated with flowers and fruit, and are in a variety of shapes and sizes. Cruets are sliced in narrow panel styles, with e.p.n.s. tops. Jam and butter dishes, sugars and creams come in an assortment of colours. The "Prana" sparklet syphons and De Freres seltzogenes are in good supply in anticipation of the coming season.

Fruit preserving jars are available from different makers, the old favourites "Queen" and "Mason" being well stocked, together with the "Lightning" and the "Utility." Having an extra wide mouth, the last-mentioned affords easy access to the contents. The jam jars, with screw lids, are made in 1, 1½, and 2 lb. sizes, and they have a new jar lid wrench of bent steel for passing over and unscrewing the lid.

Tall and squat table lamps are available, either standing or hanging, some of the shades being plain and others in fancy colours. On metal stands are lamps with coloured founts. Smaller hand lamps are also in diversified colours, and some are in crystal. There is also a line of semi-direct illuminating glassware, plain, embossed, and decorated in colours.

Grimleys Ltd., of Monarch House, Broadway, Glebe, are putting up an attractive line of tumblers in case lots of 25 and 50 dozen. These come in the cases, and the buyer at this end is saved the cost of packing. Assorted designs are supplied, plain and etched.

Embossed earthenware plates are also on hand in assorted lots, while plain and crimp chinmeys are included in the stocks, and the La Bastie unbreakable lamp glasses are supplied in E., A., and B., as well as Rochester styles.

Hand lamps are in E. and A. sizes, with crystal and coloured founts embossed with floral decorations. Water jugs are available in 1½ and 2 pint sizes, with wide mouths and small pouring lips. A fly trap globular in shape on three knurled feet and with a glass stopper has a good sale in the summer season.

T. W. Heath & Co. Ltd., of 232 Clarence-street, Sydney, carry large stocks of Burleigh dinner ware with which in most cases they can supply English tea sets in bone china to match; also tea sets, A.D. coffee, supper and berry sets. Included in the dinner service is an exact reproduction of the willow pattern from Enoch Wood's famous engraving, so highly esteemed in Staffordshire potteries. Incidentally there is a pronounced revival of demand for the old willow pattern.

From Burgess & Leigh Ltd., Burslem, they hold good stocks of "Satsuma" in dinner, tea, coffee, supper and berry sets, also teapots, jugs and a number of additional lines. These are shown in richly decorated variations of Crown Derby styles and others; while Royal visits are featured in teasets comprising teapot, sugar bowl and milk jug, and jugs of various sizes, all finished in a distinctive indescribable shade of brown graduated and bearing interesting scenic sketches by famous artists. Though distinctive they are moderately priced.

English teasets in Shelley china, "Standard" china and "Salon," all well known to the trade, are available in a number of new as well as popular shapes and colour decorations. Coffee sets likewise are offering in goodly variety with colour combinations and gilt-traced bands, also floral decorations, and a

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line of black exterior cups with gold and white band, is specially attractive.

Glassware, for table and ornamental, both cut and pressed, is available in a goodly assortment of styles and in several grades. Included here are some handsome table suites in cut crystal which should interest buyers for the coming Christmas trade and for general presentation purposes.

Toilet ware is available in a wide assortment of shapes, particularly a range with tall narrow jugs in pastel shades.

Hill, Magill, Ltd., of 131-33 Clarence-street, Sydney, are making a display of Wood's dinnerware in assorted patterns, including a special line of green Grecian Venice plates made to the firm's own pattern. The 21-piece teasets in China, English China, and Czecho China are a feature worthy of mention. Czecho white and gold cups and saucers are in Minton, Paris, and barrel shapes, showing new patterns. Bordered at the top with gold, and with three gold bands about an inch lower down, they are very attractive.

A full range of Australian-made crystal glassware includes fruit dishes, comports, cake dishes, and, in fact, all the necessary household dishes and ornaments. Another Australian line is the Citron and Rosaline tinted glassware, available in specially assorted cases. A full range of Australian and imported tumblers is also available. Continental cut glassware, with star bottoms, and best lead cut crystal, come in the form of salad bowls, vases, rose bowls, perfume bottles and other articles. Water sets are supplied with tumblers and goblets.

"Agee" fruit preserving jars are on view in all sizes. C.C. crockery is made in wide variety, including pudding basins, jugs, and other articles. Sets of three china squat and elongated jugs are available in white and gold. Corona, Rochester and Duplex lamp chimneys are seen side by side with a full range of standing and hanging lamps.

S. Hoffnung & Co. Ltd., of 163 Pitt-street, Sydney, have opened up large stocks of crystal glass of high quality, and very richly and deeply cut. The crystal is a beautiful water white, throwing off sparkling rays. Noticeable for their rich cutting are fruit or flower baskets in various shapes. The cutting represents a sun burst, and a star interwoven in the leaves is deeply cut into the glass. The handles are richly incised.

Crystal candlesticks are growing in favour. Some of those shown have lustre drops and others are in antique shapes. A very wide range of decanters and spirit bottles are stocked, some of the designs being new and exclusive, and others modelled on patterns of past centuries.

Toilet sets are dainty as to design and are richly cut. Water sets are also in wide variety, the tumblers being footless and also on stems.

In the pottery section are Foley and Ainsley chinaware. A dinner set is in primrose with a burnished gold border, and a similar border encircles a beautiful silver-grey set. Very pretty and in good taste is a dinner set on a white ground, bordered about half way down in bleu de Roi, the edges being finished in burnished gold rose, relieved with red and white medallions. Inside the cups are opalescent. Square plates are now coming into fashion and a wide range is being shown with Crown Derby decorations.

Foreign china is also in evidence, some of the samples having a snow-white body with very neat gold lace edges interwoven with blue. Another line, having octagonal plates, has a silver grey border with panel reliefs. And still another bears a black and white design with burnished gold edges. A dinner set is in snow-white, and between rings of gold is a continuous chain design in blue interwoven with burnished gold.

What is claimed to be the newest design in the way of dinner sets is named the pavilion set, the lids of the vegetable dishes being shaped like a pavilion. The decorations are in powdered blue and gilt, relieved with panels of a pleasing design. Another noteworthy set bears a blue border, encircled by rings of deep blue relieved by regular oblong figures.

Holdsworth, Macpherson & Co. Ltd., 252 George-street, Sydney, are making a special feature of English and Scottish cut crystal including consignments from Stuart & Son Ltd. and Webb & Sons Ltd. There are water sets and whisky sets in glittering array together with electric table lamps, a feature of the last mentioned being that they are to be had with coloured lights.

Royal Dux figures are an attractive ornamental line. "The bathing lady" is specially arrestive, and there are water carriers, shepherds, and so forth, all being the work of a master hand .

Unlike some of the coloured ware on the market, the new Venetian glassware is not too garish, and is tastefully and artistically finished.

Amongst the new season's goods is an extensive range of Omar Khayyam ware, including tea sets, sweets dishes, and sets of teapots, sugars, cream jugs, and a wide variety of useful and ornamental articles. Sceens suggestive of the Persian poet are depicted on one half of the upper surafce, the other half being a deep blue, making an artistic picture.

A very popular line is the "Kookaburra" flower vases, bearing a representation of the Australian bird in colour on blue, red, yellow and green backgrounds. Novelty cruets embody mustard, pepper and salt receptacles in the shape of strange-looking birds and animals. One of the main lines for the Christmas trade is an assorted case of the china called Roseville. Black cats on chinaware are seen in all sorts of fanstastic shapes and sizes.

In dinner ware two of the leading lines selected from a large assortment are the Wedgwood, tastefully decorated with a blue band and lace, and Grimwade's Berkley. All accessories are provided with these sets, including soup tureen, cheese dishes, teapots, egg cups, and so forth. A large range of teasets from English and Continental makers includes some in self colours, while borders and strange jazz designs are much in evidence. Vases are in china and earthenware in a variety of shapes, colours and decorations. Salad sets comprise a large bowl and six small dishes. Here again we find striking colours, notably those with blue borders, floral and other decorations, and black handles.

A new feature is found in the fruit sets, the plates being specially edged to hold the peelings. "Pyrex" ware is stocked in all forms and sizes.

John Keep & Sons Ltd., of 104-08 Sussex-street, Sydney, are showing a good variety of pottery and crystal ware. Jam dishes are decorated with fruit, some having lids and others being open. A noticeable line in the form of a shamrock has three receptacles. A china cruet is noticeable for its rich but tasteful decorations. A china sugar dish is of uncommon shape, with a burnished gold handle and an e.p. cover.

Tinted fruit stands are made in delicate shades. Jugs, elongated and squat-shaped, are in various colours with floral borders. Fruit dishes and rose bowls in a variety of colours, some plain and others with floral borders, are prominent, and octagonal vases are uncommon as to shape and decorations.

A wide variety of dinner and afternoon tea sets is on offer, some of the latter being very richly decorated, while others are made to meet quieter tastes. Milk jugs in white, pink, red, and blue are set off with black handles and pourers, giving a

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quaint appearance. Other milk jugs are embellished with appropriate rural scenes.

Vases bearing pictures of old English village scenes are interesting, and toilet sets in various colours are finished with bands of blue and lilac and pictures. Very neat looking are the white teasets with light blue borders, with gold bands at the top and bottom. Others are finished in lilac, black and red colours.

Jardinieres are available in a variety of shapes and colours. Butter and pie dishes, bread crocks, pudding moulds and bowls, casseroles, tankard-shaped drugs, and lilac and white salt containers indicate but a small part of the extensive stock.

Lyon & Milling, of 62 Clarence-street, Sydney, are again making a feature of "Tango" glassware in assorted packages specially selected for country stores. In addition to the "Kookaburra" glassware the "Canberra" is now on view. Both these names and patterns are controlled solely by the firm. The "Canberra" is deeply cut, with an etched chainette border, and makes a very attractive line. The "Pall Mall" glassware is a high-class production with a splendid brilliance.

Satin glass powder boxes in a variety of colors have the apearance at first sight of the material from which they take their name. Sea green satin glass and golden satin glass vases are very attractive, and so also toilet ware with red or blue coloured bodies, enriched with borders of Australian scenes. In addition to a wide range of imported glassware the Australian-made Citron and Rosaline is carried.

The Cauldon Pottery flower pots, squat-shaped like a flower bowl, have been designed to meet the demand for a new flower pot of a more pleasing appearance than the old terra cotta article. Some of those on view are multi-coloured and others are made in a very rich lilac.

"Jumbo" cups and saucers, some bearing the word "Father" and some without, are made in sizes calculated to hold enough liquid to satisfy the thirst of half a dozen heads of families. The French fireproof stew pans are supplied in a number of shapes and sizes and are said to be specially suitable for preserving purposes. Casseroles made from the same material are also available. The ever popular "Pyrex" is on hand in the form of all sorts of domestic utensils.

Floating bowls and flower holders make an imposing display. The bowls are to be had in the latest and most fashionable shapes and colours.

American cut crystal flower vases are prominent, and orange and royal blue satin glass comports and fruit bowls are not the least noteworthy feature of a very large assortment of seasonable lines.

John Shorter Ltd., of 193 Clarence-street, Sydney, have on view a beautiful range of full British hand-cut crystal from Thomas Webb & Sons and the Edinburgh and Leith Flint Glassworks. Purity of colour, remarkable iridesence, and richly cut embellishments are the chief characteristics of the display. A punch bowl or claret cup bowl stands out prominently. Diamond-shaped protuberances encircle the upper portion, giving a rich appearance, and fine etchings and deep cuts add to the beauty of this very fine piece. Water jugs are in great variety, both squat and elongated. A long vase for ferns and large flowers is beautifully cut, and tall sweets dishes for table decorations are attractive features. Coffee cups and saucers for iced coffee are a novelty, the etchings being artistically done. Cocktail sets on a crystal tray and complete with shaker are in varied assortment as to the shapes and decorations of the glasses. Fruit salad sets comprise a dish and six saucers. Perfume bottles are beautiful in design and ornamentation. Wine and spirit decanters take on various shapes and sizes, glasses being supplied to match. Some beautiful rose bowls are supplied with wires and glass magic centres.

The Royal Doulton ware from the Royal Doulton Potteries, Burslem, Stoke-on-Trent, is really delightful in its artistic treatment, its rich colouring, and its refined taste. The "Country Side" series, decoration No. D3647, makes a strong apeal, hand-painted views being pictured under a mellowing ivory glaze, with a brown shade and dark green edge, and signed by the artist. The "Fisherfolk" series is done in a wealth of colour, pleasing and convincing. The atmosphere has been cleverly realised, and the pictures should appeal to people of taste. The "Coaching Days" series, as described by Dickens in "Pickwick Papers," is charmingly illustrated. Another typically English series is "The Gaffers," in picturesque characters in smocks of hand-made linen, tall hats and capacious umbrellas. These are only a few of the various series available.

In teasets a medium-priced example is shown with floral decorations inside and outside the cups with gold edges and traced handles. Another bears berry decorations on a blue band relieved with black. Still another is on a mauve ground with medallions in black. A dinner set has a cobalt band with a dropping of gold lace. A broad blue powdered border with gold ornamentation also attracts attention.

From A. B. Jones & Sons, of Longton, comes Grafton china, in a variety of decorations and designs. A rich maroon is relieved with gold laces and blue festoons.

From Sampson Smith Ltd., also of Longton, are Wetley china teasets in wide variety. The black and white decorations are exceptionally well done, and there is also a line of Crown Derby in bright colours and rich themes.

The Gainsborough Flambe, Doulton ware is noteworthy, comprising vases, ash trays, teacups, saucers and other accessories. The Range Flambe collection calls for special mention, some striking colourings having been achieved by the sun glazing process. They are all individual pieces and cannot be reproduced.

Mr. Geo. W. Snook, of 127 York-street, Sydney, has his showrooms well filled with an exceptionally large range of glassware and pottery as well as brass and copper ornaments and utensils. A splendid array of Stuart's crystal glistens on the shelves, and the high quality is shown by the bell-like ring given off in response to a light tap. In addition to the very high quality crystal, stocks of medium and lower grade glass are carried to suit all tastes and pockets. Salad bowls are attractive as to cut and embellishment and vases and rose bowls are available with and without centres. The trumpet shaped vases are particularly noticeable, and all sizes are on hand. Some of the rose bowls and vases are decorated with representations of flowers in bright and dull cutting. Cut crystal water sets may be had with tumblers or goblets, the incisions being very fine and deep. For presentation purposes one line is put up in a cabinet. Particularly gorgeous are the trinket sets, including all the usual accessories and the now fashionable candlesticks. These services are made up to cover any number of pieces desired. Whisky and wine decanters take on new shapes and are sold singly or with goblets and fonted tumblers. Fonted sweets dishes may be had in either cut or etched designs, and grape fruit receptacles similarly finished.

The Orrefors crystal and glassware is in good supply. Very handsome and brilliantly cut are the tall wine and whisky decanters with glasses en suite, including champagnes, wines of all sizes, goblets, whisky nobblers, as well as water sets. A wide range of vases of handsome shape and design are also shown. Salad bowls and comports are in great variety, and crystal puff boxes and toilet sets attract

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the eye by their excellence. The pillar shaped candle sticks are an attractive feature, and the perfume bottles are in uncommon shapes and design. Vases are very finely cut, and one in particular was noted, being of the matradore shape and fonted. A stopper gives a finished appearance.

Electric table lamps of both Stuart and Orrefors make are on hand in wide variety. Cruets are to be had in all shapes and sizes. New and stylish are those with the basket shaped handles, and holding three receptacles. Five bottle sets on long trays are available together with a new line of horseshoe pattern, and another of shamrock shape. American moulded and semi-cut glass includes sugars, comports, rose bowls, salad services and candlesticks.

Aynsley teasets in plain art colours are most tastefully done, the fashionable square plates being strongly in evidence. One in primrose, with a black lined border was particularly noticeable. Included in a great number of beautiful designs was a set decorated on the outside with burnished gold lines on a white background, while the inside bore representations of roses on a French grey foundation. A big assortment of Melba bone china of Crown Derby pattern includes designs with the decorations inside and out. The willow pattern of grandfather's days is coming into vogue again, but instead of the dark, heavy patterns of yore, we now have a light, thin design. The cups are tastefully shaped, and the plates are square. The Johnston dinnerware with octagonal plates are smart and dainty. The Maddocks white and gold dinnerware comprises several designs, and other makes include Wedgwood, Rosemary, Rosedale and the Key patterns. Attractive are the Doulton plaques, rose bowls, cups and saucers, teapots, jugs and vases, bearing representations of Dickensian and Shakespearian characters. The Royal Doulton dinnerware is worthy of special mention by reason of its artistic decorations.

W. G. South & Cowan Ltd., of 353 Kent-street, Sydney, are opening up large consignments of new goods specially selected by Mr. South on his tour of the English and Continental potteries. The range is quite comprehensive both in variety and value.

English crystal from Thomas Webb & Corbett Ltd. makes a glittering display and some new and interesting designs are on view. Rose bowls are in a number of different shapes, one in oval form being particularly noticeable. A footed rose vase with supports is something new. Two electric table lamps are noteworthy, one because of its outstanding size and new cuttings, and the other because of its Jacobean twist. Salad bowls in new shapes, sugars, creams, vases, water sets, tumblers, and other vessels are in evidence. New designs are also shown in cruets.

An extensive assortment of dinner and teaware is carried. From A. J. Wilkinson Ltd. and the allied Newport Pottery Co. Ltd. come dinner and teasets complete with all additions, such as egg cups, cheese dishes, and other requirements. A dinner set, No. 5422, is one of the newest patterns, and a cheaper line is in litho with blue and red medallion and green lace borders. Other new patterns are in two colourings, one being a wide blue border with faint medallions. Fruit and salad sets are made to match, and all dinner ware carries several extra pieces.

Teaware from Wild Bros. looks specially smart with its showy patterns in Crown Derby styles. A special line are the "Dorothy" cups and saucers with gold edge and three gold lines.

Collingwood Bros. Ltd. specialise in dinner and teaware of good grade in neat and dainty patterns, both litho and hand enamelled. A coffee set is in French grey bearing floral bouquet medallions.

Madrid and Oxford dinner ware are standard lines, and Plymouth and Corinth teaware and coffee-ware are equally well known.

From **George Jones & Sons Ltd.** come dinner-ware and teaware of the highest grade. One line comprises teasets, coffee sets and dessert sets in powdered blue, enriched with gold borders. Another bears enamelled faint decorations on a yellow ground. A third has gold decorations on a dark blue ground. Sets signed by the artists concerned are also on view. For those desiring ware at low prices stocks are shown from Continental makers—neat and tasteful patterns too.

Perth-shaped jugs have been specially made to fit into ice chests, and they are shown in white with black edges, or white and gold to match the stock lines of dinner ware. Hotel keepers and proprietors of refreshment rooms complain that crockery made to stand hard usage is too heavy. The firm are now showing a lighter plate with rolled edges, made specially for public dining rooms and guaranteed to stand hard wear.

Swans Ltd., of 304 Pitt-street, Sydney, are showing four light electroliers from Daum Freres. The opal-like tones gives the whole a beautiful appearance. Inverted electric light shades are hand painted and daintily etched.

The firm carry a wide assortment of tiles for halls, verandahs, fireplaces and shop walls. A model bathroom, showing hot and cold water systems in working order is a prominent feature of the showroom. There is a let-in shower space as well as a Roman bath.

A model kitchen in Terrazzo ware should have a strong appeal.

Willis & Sons Pty. Ltd., of 50 York-street, Sydney, claim that values in cut glassware are far lower this year than they were last year.

A toilet set of nine pieces, including a tray and two candlesticks should make a seasonal gift.

Butter and cake dishes, large and small vases, novel cruets, water sets, the popular squat-shaped water jugs, all go towards making up the elaborate display in the show cases. Some are simply and others elaborately and deeply cut. One line is finished with silver borders.

The new carbonic ornaments, smokers' outfits and utensils are growing in popularity. They have the appearance of a high polish and are neat and attractive. In addition, smokers' outfits are supplied in jet black enamel, light brass, bronze, and oxidised brass.

This year a special display is being made of the 4/4 grandfather clocks. One in particular gives a selection of either Westminster or Whittington chimes, or the chimes may be shut off altogether if desired.

Melbourne

Clarke & Co. Pty. Ltd., of 281 Lonsdale-street, Melbourne, importers of all domestic lines in glass and chinaware, carry all Meakin's well-known plates and dishes, and also those of Woods and the "Octagon" brand. Willow ware is again most popular, quite a revival having occurred in this old pattern, which is constantly stocked by the firm, as also is Shelley ware and Crown Derby.

An idea which is appreciated by retailers who do not wish to carry heavy stocks is that of purchasing assorted crates of the various sets. Packages are now supplied containing the best selling lines in a range including eight patterns, and three sets of each, making twenty-four sets in all. For those who find this quantity too large packages of twelve sets may be obtained. These packages may be had to cost from £5 to £20. It is claimed that by this means the basis is practically equal to buying at "ship's side."

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New shipments of jardinieres, vases and other decorative earthenware offer a good selection of attractive things for Christmas trade. Other gift suggestions include biscuit barrels, flower bowls, and E.P. goods, while for the children there are a host of china articles such as mugs, plates and porridge bowls, bearing mottoes and pictures to suit the occasion.

Chas. Day & Co. Pty. Ltd., of 349 Flinders-lane, Melbourne, have many ranges of glass and china ware, including several new and interesting lines. The English "Byzanta" ware, striking in design and in bright colours, is a good example of high grade work. The lustrous finish is pleasing to the eye and the articles obtainable are fruits, flower bowls, cake dishes, tobacco jars and similar goods. "Noritake" china is again meeting with favour. The variety of shapes and shades obtainable in this ware, together with its low price, render "Noritake" ash trays, flower bowls, cruets and small gift "notions" quite useful for the Christmas season.

New ideas in Royal Albert crown china attract attention. Neat festoon patterns are the rule, and a delicate scheme of blue and gold makes these tea-sets distinctive. Other makes noted were Royal Minton, in several finely decorated pieces such as fruit and supper sets, bowls, and cheese dishes; Royal Doulton vases, teapots, and ash trays in representations of the characters of Shakespeare. Dickens and Burns, bearing the customary marks of the quality of this material; and Royal Stanley Jacobean jardinieres and vases, in handsome dark colours.

A constant demand is found for the white "Lilian" china. This type of table china has been most popular in the past, the price, however, placing it beyond the reach of many buyers. It is now available at a moderate figure, and should be well worth consideration by the retailer. It comes in a most effective range of lattice patterns, and may be had in vases, fruit dishes and the like. Another good range is the "Phœnix" decorative ware. Of English make, representations of scenes from Omar Khayyam are used in the designs, unique shapes and tones giving the different pieces a character all their own.

No stocks are complete now-a-days without a selection of crystal glass, and here a large variety of makes and grades is displayed. Many countries are drawn upon for the samples shown. Some of the best known brands of English cut crystal decanters, fruit dishes and cruets are now to be found in Chippendale, Queen Anne and other patterns. To meet the demand for lower priced ware every article may also be had in pressed glass of Australian, American, and Continental make all representing different grades.

Mr. R. M. Hall, of 185 Queen-street, Melbourne, has recently landed quite a number of useful ranges in modern china, pottery and glassware. The present time is opportune for buying, as importations of new season's good usually come to hand during September and October.

A stock of "Pyrex" cooking ware is amongst the kitchen requisites. The makers of "Pyrex" are extending their scope, and teapots may now be had in a good range as well as many more recent shapes in dishes and basins. Any special effort by the store to push this material is generally well repaid.

A wealth of design and colour is found in the various decorative wares which form so large a portion of the pottery and glass business to-day. It is difficult to choose amongst so many good lines. "Carlton" ware instantly attracts the eye. The many shapes in vases, fruit sets and other articles with their colour blendings of powder blue and gold, or tangerine and black, make a fine show. "Crown Ducal" is another most attractive type, and comprises tea and dinner sets, flower vases and comports. In the other extreme is white Lilian china, which is so popular just now. A good item of this ware, to mention one only, is a handled basket design, used as a cake or fruit dish.

In the plain, everyday crockery several sets are to be had, at a low figure. These sets make a reliable line for stock, being easily replaced, and in constant favour with buyers. Another steady selling brand is the "Tuscan." These tea sets could be quite safely handled anywhere, as the demand is regular throughout the year. One of the best ranges in white would probably be the English make of Shelley bone china of delicate appearance. This ware is nevertheless strong, and quite unique in shape. The colour is of the clearest white, a feature which the factory finds its best recommendation.

In addition to the usual glassware, tumblers, jugs and vases, a varied selection of crystal cut and also pressed glass is arriving by almost every incoming vessel. For buyers who find cut glass beyond their means the pressed ware is now quite well finished and of good appearance. Australian, English and American brands are here, and an assortment might well be placed in stock by the retailer for the Christmas trade.

The choice of jugs is very large, and values extend from the highest qualities down to sets of plain china for solid use. Toilet ware not only declines to leave the market, but new designs and decorations are continually coming to hand and finding buyers.

Neale Harrison's Successors, of 443 Bourke-street, Melbourne, have already landed shipments of the above in anticipation of the enhanced demand which is customary at the end of the year.

Decorative goods again furnish a large part of the display. The choice offered is wide, and it is possible to select a very fine variety to meet all requirements as to price and quality. In vases and jardinieres, floating bowls and jars, such types as the Royal Crown Ducal, Imperial Amphora and Decoro can all be recommended. Carlton ware comports, vases and coffee sets are in the favourite tangerine colouring, black and gold, or blues. Plain or figured vases of Royal Doulton ware are among the most appealing of all. A new line which is just opened, and is finding many friends, is a French make of pottery, in art designs. Such decorations as ivy leaves and flowers, grape trails and pomegranates, are used in many various shaped vases and jardinieres with good effect. Again in this class of article the Moorcroft range is prominent. The distinctive colours in this material are familiar, and the patterns represented include plum, pansy and pomegranate. A consignment of Kayser fruit baskets, comports and vases, too, will find many admirers.

As usual, Copeland's spode china is found in some fine salad bowls, jugs and teapots; while Italian willow spode also attracts. These articles are extensively stocked in Tuscan china also, which would appear to be constanly in request. Whether in tea sets, celery trays, sweets dishes, cheese dishes or teapots, this china holds its own for a moderately priced ware. The firm again offer a number of assorted original packages for the store, enabling the retailer to procure a varied stock without fear of overloading.

The popularity of crystal glass is reflected in the ever-increasing ranges displayed. It is considered that this is one of the best selling lines in the trade to-day. The makes here shown include Leith Brierley, Edinburgh, Stuart, and Stebens & Williams, while the Swedish brand of Orrefors crystal is meeting with quite a good demand. Pressed glass, although not of the quality or price of cut crystal, is yet a useful class of ware for many households, and may be bought so reasonably that it is always worth a place in the store. Salad bowls, fruit dishes and

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jugs, as well as very many small articles of pressed glass, are so strong and serviceable, and such a large range is available that a good display can be made both attractive to the buyer and profitable to the store. Heavy stocks are now landing in all makes.

M. Isaacson & Son, of Somerset-place, Melbourne, report the arrival of fresh shipments of English and Continental glass, china, and earthenware.

Many lines of Czechoslovakian ware show a departure from pervious designs and colourings, and some attractive types in teasets are displayed which are expected to find favour with buyers.

Crown Derby colours are again featured, however, a constant demand existing for this well-known ware. A fine lot of dinner ware, in a host of makes, is included in recent consignments. Meakins are among the prominent manufacturers here. It is usual now to provide 44-piece sets, a half-dozen cups and saucers forming part of the set.

The usual decorative ware of the "Lustre" patterns gives a good selection for Christmas business, probably the largest portion of the sales of this ware being for gifts.

Such pieces as teapots, rose bowls, and floating bowls are offered, the combinations of tangerine and blue making an effective colour scheme for the crockery department. Cut crystal is extending its variety of articles and designs. The Czecho makes in this material are quite good value, giving a wide range of choice. Bowls, fruit sets, water sets, goblets, vases, salad bowls, sweets, honeys, are all useful. A Queen Anne pattern is specially well done.

As in every branch of trade, the varieties of goods in china are continually increasing. In teapots and jugs alone, for instance, the extent of selection is most marked. Our old friend the brown earthenware teapot is still with us, now in a multitude of different shapes and tones. They are good stock, however, for as the wholesaler says, they "sell all day long."

This firm pay special attention to toilet sets, and keep quite a large collection on hand. Both as regards shapes and colours these sets show a tendency for fresh ideas and difference of treatment in finish.

Levy Bros. Successors Pty. Ltd., of 271 Lonsdale-street, Melbourne, specially recommend to the notice of buyers a series of terra-cotta figures which have been received into stock. These comprise many different subjects, such as water-carriers, Rebecca at the well, mother and child, and animals. There are busts and full figures, and also some quite handsome vases with the statuettes forming a part of the design. All of them give the impression of solidity and worth, and although reasonable in cost have none of the cheap appearance so often associated with this class of work. They range in height from 15 to 36 in., and the colourings used are quite in keeping with the various subjects.

Another line of lustre ware will find many buyers. The decorations are well executed, and include such vessels as vases, floating rose bowls and flower bowls, cheese stands, and teapots. Both the shapes and the tones are new, and include a kookaburra pattern which will be appreciated.

A feature of the chinaware department is a recent shipment of English tea sets, including some of the most wanted types. A good choice is presented of Crown Derby decorations, willow ware and border patterns, and dinner sets may be had of the same designs.

Besides the every day glassware, which is always on hand, a large supply of cut crystal has been imported in preparation for the season's demand. This material has become so popular with the public that it is found necessary to arrange for progressive shipments of the best selling lines for the Christmas trade. A glance at the specimens displayed reveals quite a number of novel shapes in the various articles, many pieces being obtainable which break new ground as to design and execution. The collection of vases is specially interesting, and forms a useful and welcome addition to the list of suggestions for gifts. It is safe to predict that any store could rely with certainty upon a good reception at the hands of their clients of these vases. The same may be said of the other articles of crystal glass, including salad bowls, fruit bowls, fruit sets, water sets, butters and sugars, and sugars and creams. The variety of shapes available, together with the prices, make the whole range worthy of inspection.

In a few days the firm expect to have in the showrooms an assortment of Royal Dux figures, which are now at the wharf. These proved one of the best lines of their kind during the past year, and indications point to a continuance of the demand.

J. & B. Sniders, of 318 Flinders-lane, Melbourne, have for many years given special attention to their china department, and practically everything of interest to the trade is obtainable from stock. Their present display probably exceeds in scope and variety anything seen in previous years. This is due to the fact that manufacturers find it necessary to extend their range more and more to meet the demand for novelties, and greater selections are the order of the day.

In decorative pieces, including jardinieres, vases and flower bowls, an endless array is offered. Among a long list some of the specimens of Crown Derby catch the eye. The floating bowls and centres come in a profusion of shapes and designs, each presenting an appeal. Crown Derby jugs, teapots, salads, vases, cress dishes, creams and sugars are well known, and a number of fresh ideas are obtainable this year. In this ware also are dinner and tea sets to match which are expected to find many buyers.

For most stores one of the best ideas is the selection of goods which come in specially assorted original cases. Available in various combinations, these form a useful series, and enable the window dresser to make an attractive display. In the moderately priced section are rose bowls of bright coloured glass, often finished in black tracings, which are supplied in many different shapes and tonings. Although low in cost the appearance is good and even artistic.

In crystal glassware Stuart cut glass is again prominent, and various other makes are also worthy of inspection. Jugs, goblets, salad bowls, as well as lamps, are now to be found in crystal glass. Lamps of this material are a new departure, and all the signs point to quite a successful run of business. They will be specially in favour as gifts, and orders are now coming in freely for the Christmas trade. Suites of cut glass, as well as the pressed material, are in a comprehensive range. These, too, will find ready sale for presentations.

Another line which should be seen is a new class of tinted or shaded glassware, most effective in matt and bright coloured rubies, blues, and pinks. Flower bowls and vases are the principal articles in this series. Hosts of small things suitable for gifts are to be seen on the crowded display tables. China novelties, puff-boxes, figures, pin cushions, china tape measures, and ash trays, are merely a sugestion of the many trifles of the kind mentioned. Among recent arrivals are copies of old English pottery, such as candlesticks, cake plates, and other quaintly shaped vessels, offered at a reasonable price, and Royal Dux figures; reproductions of famous works of art which are within reach of the every-day buyers. The latter are reported to have met with a speedy sale in all parts of the State.

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Electrical Section

Electricial Exhibition in Melbourne

At the Exhibition Buildings, Melbourne, from September 10 to October 1, an electrical exhibition was held under the asuspices of the Electrical Federation (Victoria) and the supply authorities. The committee of control included prominent officers of leading electrical companies, under the chairmanship of Mr. S. J. Salmon, of the Lawrence & Hanson Electric Co. Ltd. and President of the Federation. It was officially opened by the Minister in charge of Electrical Undertakings.

The close co-operation of the various sections of the trade, with the State Electricity Commission and the Melbourne Electric Supply Co. Ltd., supplemented by the able control of the committee, combined to make this display quite the best we have seen in Melbourne. Held during the currency of the Royal Agricultural Show, it afforded country visitors the opportunity of seeing every useful contrivance whether for farm or domestic purposes, either in actual operation or in their appropriate setting.

Specially educational were the commonsense methods of showing the application of electricity to public traction in tramways and railways. The entire system of construction was readily seen, and the visitor of inquiring mind was enabled to observe a working demonstration of controls, brakes, signals and safety appliances. The Fire Brigades Board staged a complete representation of modern devices as used at the city stations, an attendant being in charge to explain their working. Leading suppliers of electrical goods carried out demonstrations of lighting, cooking and other domestic appliances, and during the whole of the period an interested public gave their attention to the labour-saving apparatus at the various stalls.

The State Electricity Commission of Victoria displayed with ingenuity a model all-electric farm. Electric ploughs, chaffcutters, pumps, milking machines, and even electro-culture as applied to plant growth were to be seen, while within the brightly-lighted homestead a stove, a washing machine, and other appliances were driven by the same means.

Prominent amongst exhibits were those of Thomas Abbott & Co., the Australian General Electric Co. Ltd., Brooks, Robinson & Co. Ltd., J. A. Gray, the Lawrence & Hanson Electric Co. Ltd., J. L. Newbigin Ltd., Noyes Bros. (Melb.) Pty. Ltd., Siemens (Australia) Pty. Ltd., Warburton Franki (Melb.) Pey. Ltd., W. G. Watson & Co. Ltd., and others. Demonstrations given by these firms created great interest. The women folk found the various home appliances a prime attraction, and it is understood that sales were many.

At the stand of the Lawrence & Hanson Electrical Co. Ltd. the "Whirldry" washer was voted one of the features of the exhibition. No less than three, and sometimes four, of these machines had to be operated at the same time to satisfy the demand for information. A description of the "Whirldry" appears elsewhere in our columns. The same company are handling the McClary electric stoves, and Sterling reflectors.

Noyes Bros. (Melb.) Pty. Ltd. were represented by both domestic and industrial equipment. The "Hoover" vacuum cleaner, Brown's and Igranic radio appliances, "Highlow" heavy duty cooking ranges, Parkinson electric motors, Philips lamps, and other goods were shown.

Thomas Abbott & Co., now so well known as makers of electric bath heaters and water services, gave practical displays.

Brooks, Robinson & Co. Ltd. had in the centre of their stand an electric fountain under a handsome "Luxfer" glass cupola. A room furnished with period fittings, electric fires and appliances was well designed and tastefully executed, while a specimen show window, illuminated with varying coloured lighting effects, was most effective.

As agent for "Turbinet" cleaners, a British line, Mr. J. A. Gray displayed three of the twenty-six types made by this company.

The British General Electric Co. Ltd., who carry a large range of "Magnet" and G.E.C. electrical equipment and appliances, presented an extensive list of household and factory requirements. In domestic lines almost all the accessories which are produced by that company were to be seen, including "Magnet" irons, cookers, fans, fires, toasters, urns, and ventilating devices. "Cecophone" wireless sets and parts, and "Osram" valves of all types were also included in their exhibit, which was excellently handled.

Interviewed by a representative of this paper, Mr. S. J. Salmon, chairman of the committee of control, said that the effort had been a decided success. Its popularity with the public could be gauged from the fact that on the previous evening (September 28), after running nearly three weeks, the attendance constituted a record. Although considerable business had resulted to the firms represented, it was never anticipated that they would be recompensed for the expenditure incurred, nor had the exhibitors expected an immediate return for their outlay. From this point of view the electrical companies, who so cordially assisted to make the exhibition a success, deserved a large share of the credit. The object aimed at was the education of the public to the great possibilities of electrical energy as applied to the daily tasks of the household and the farm, the removal of misconceptions, and the demonstration of the simplicity and efficiency of the appliances now available. The cost of admission was nominal, while pupils of technical schools or any body of students were allowed free entrance to the display.

Notes from New Zealand

(Specially Contributed.)

Dannevirke Power Board has decided to apply for permission to raise a supplementary loan of £16,200 for additional reticulation work.

Invercargill Borough Council electricity committee is inviting tenders for approximately 28 miles of cable for general extensions.

Tauranga Power Board proposes to raise a loan of £3500 for converting the high-tension line from Omanawa to Te Puke from 11,000 volts to 33,000 volts.

Waitemata Power Board will take a poll of ratepayers on the proposal to borrow a further sum of £80,000 if approval of the loan is given by the Local Government Loans Board.

In response to a request from Waitaki Power Board, the lighting committee of Oamaru Borough Council is to hold a further conference with the board to discuss the question of street lighting.

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Te Awamutu Power Board has completed the following total of electrical installations:—Lighting, 1240; milking motors, 416; water pump motors, 82; other power installations, 55; ranges, 73.

Arrangements between Tauranga Power Board and Tauranga Borough Council for the supply of electric power for working the new pumping plant at Muir's Gold Reefs have been completed and the work is now in hand.

Poverty Bay Power Board reports that the first of the two new generating units has been put into commission, while parts for the second unit are arriving and erection of it will be commenced shortly. A sum of £3700 has been advanced to consumers for house wiring purposes.

Tararua Power Board reports that the demand for water heaters for dairy farmers is steadily increasing. The board has "picked the eyes" out of several types of heaters already in use and were now having heaters built to their own design by an Auckland manufacturer.

Dannevirke Power Board has experienced the busiest month since it started operations. The number of applications for milking-machine motors and dairy type water heaters was exceptional, while house wiring installations kept the contractors very busy indeed.

Bay of Plenty Power Board is calling tenders for (a) the first block of 100 installations; (b) ranges in lots of 100 to 150; (c) water-heater elements up to 300; (d) milking plant switchboards, 200; (e) milking plant countershafting equipment, probably 100; (f) milking plant motors, 200.

Waiarapa Power Board reports that some progress has been made regarding a settlement in connection with the Upper Kourarau hydro-electric scheme. The price to be paid for the portion of the Tahuna block has been agreed upon and it is expected that final arrangements will shortly be made.

A report on the development of a hydro-electric scheme for the Grey Power Board's district has been submitted by the consulting engineers, Vickerman & Lancaster. For a 4000 kw. scheme the total estimated cost is £120,000, or for an alternative 1000 kw. scheme £70,000. The proposals will be considered.

Golden Bay Power Board has resolved to apply to the Minister of Public Works for a licence to use up to 20 heads of water from Campbell's stream and 10 heads from the Waikoromumu stream, in accordance with plans prepared by Climie & Son, the consulting engineers who reported on the hydro-electric possibilities of the district.

A large transformer station has been erected by the Public Works Department at the Ruakura State Farm in Waikato district. Ultimately the station will serve to break down the current from Arapuni hydro-electric development from 110,000 to 50,000 volts for local distribution, thus relieving the Horahora plant of a portion of the present load.

Wanganui-Rangitikei Power Board is going ahead with service extensions. The main line has been completed as far as Utiku and most of the low tension line in the township erected. An extension from the Makirikiri South line to the Bulls-Turakina road and for a distance of 60 chains along that road has been completed and service given.

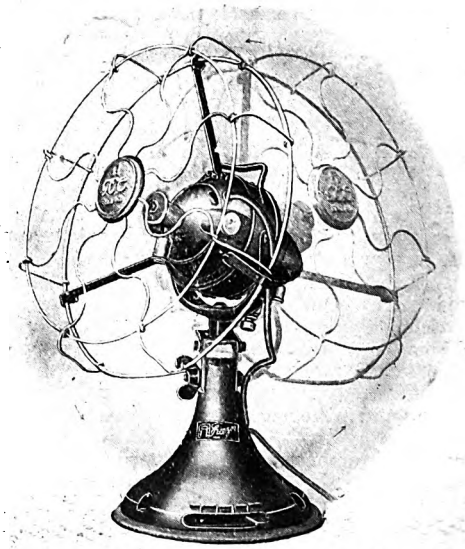
Southland Power Board's generating station at Monowai reached a peak load of 4900 kw. during August, but the total output of 1,798,860 units was rather less than for the previous month. Forty new consumers were signed up during the month, and 33 connected, while 65 extensions were made. The connections include 16 ranges, 3 water heaters and 17 motors, totalling 48 h.p.

Hutt Valley Power Board reports that the wiring of Pukerua Bay has been completed and the Wakefield-street substation put into operation. The demand grows rapidly, this year showing 6130 consumers as against 4588 last year. During August 13 ranges and 14 water heaters were installed. There are now 478 ranges in the board's area, showing an increase of 223 over last year's total.

Manawatu-Oroua Power Board is being kept busy with extensions and connections for light and power. Quite a number of the new pumice-concrete hot-water cylinders have been installed and are giving excellent results. In order to have a standard cylinder for purposes of comparison, the technical school has offered to carry out future tests, and the board's engineer proposes to supply the school with a complete water-heating equipment which can be used as a standard.

A New Fan.

A "Magnet" brand electric fan of a new type is now to be seen at the showrooms of the British General Electric Co. Ltd., 590 Bourke-street, Melbourne. The "Gyro," as it is called, has a movement which may be described as elliptical, with a maximum arc of 45° vertically, and 105° horizontally. This movement sweeps the entire atmosphere of a room and displaces a greater amount of air than previous models.



As with other "Magnet" fans of the oscillating type, the "Gyro" is fitted with a slipping clutch, which prevents any possible injury to the gears. Should it strike a wall or other obstruction, while the guard is in contact with the wall, the clutch slips until it is freed, when the fan will return to its gyroscopic or oscillating movement without further adjustment.

The back of the fan is of torpedo shape to reduce air resistance. The armature is hand wound, a feature which will appeal to the electrician. For the layman's information it may be explained that a hand-wound armature can be rewound by the same method in the event of a burn out, without any loss of efficiency. As no machinery is available here for mechanical winding, armatures originally wound by machine cannot be so satisfactorily re-wound after burning out.

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HARDWARE AND MACHINERY

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Established 1886

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Advertisers will kindly note that all alterations to Advertisements should reach us by the 25th of the month.

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Agricultural Implements.

The Standard Implement Co. Ltd., of Tanunda, South Australia, have sent us copies of two folders issued in connection with their business as manufacturers of agricultural implements. One deals specially with their light stump jump fallowing plough, built in six, eight and ten furrow sizes, and the other with their heavy stump-jump fallowing plough, built in sizes of five, six, seven and eight furrows. Both are strongly constructed, with frames of spring steel, wide-tyred wheels, and lever steering gear. Tanunda is in the midst of a farming district forty odd miles north from Adelaide.

Commonwealth Customs.

An abridged edition of Trade and Customs Orders has been issued by the Commonwealth Department of Trade and Customs. A cloth-bound volume of 328 pages 9½ by 6, it contains only such parts of the larger volume as are of interest to the mercantile community and has been prepared for the use of agents and traders transacting business with the department. The unabridged edition, it should be added, carries all Orders dealing with Customs and Excise matters. All revelant Orders up to the end of 1926 are given in the smaller publication, the arrangement being Customs, Excise, Commerce and Trade Marks. A detailed alphabetical index occupying many pages greatly facilitates reference.

Our copy is from the department in Melbourne.

International Code.

An English edition of the Rudolph Mosse code, a publication which has hitherto appeared in the German language only, will be welcomed by many business concerns, especially those who have occasion to cable to foreign countries. A feature of this code is that in using the foreign language edition no special manipulation is necessary. The element of a foreign language does not enter into the work of coding or decoding. There are no double references, and only one edition, the English, is required by English-speaking people. A glance at this work is sufficient to reveal its value. Besides the advantage abovementioned the many phrases and combinations it contains cover every ordinary commercial transaction.

The Australian representatives for Rudolph Mosse are Horn & Co., of Bank House, Melbourne.

Canadian Trade Index.

The Canadian Manufacturers' Association issue from year to year a trade index to Canadian trade and traders in the shape of a well-bound volume covering 880 pages, 10 x 7. There are four main parts, (1) an alphabetical list of manufacturers with addresses and other particulars, (2) a subject matter index running from "abattoir equipment" to "zinc oxide" with the names of the manufacturers interested in each item again alphabetised, (3) a directory of exporters of agricultural produce and allied lines, and (4) alternative or supplementary lists in French and Spanish of the headings only in No. 3. At front and back are a good many pages of advertisements, and information is given about the Canadian trade commissioner service and other matters. To all who have business dealings with the Dominion the volume should be most useful. It is a very welcome addition, certainly, to our own shelf of directories.

The headquarters of the Canadian Manufacturers' Association, Inc., is at 67 Yonge-street, Toronto, and our volume comes to hand with the compliments of Mr. D. H. Ross, the Trade Commissioner in the Commonwealth of the Government of Canada, whose office is at 90 Queen-street, Melbourne.

Foreign Exchanges.

Foreign rates of exchange in London for cable transfer on the centres and dates indicated, compare as follows:—

Par.	—	—	Oct. 24	Oct. 27	Oct. 31	Nov. 3
4.886	New York	Dols. to £	4.87⅛	4.87	4.87 1/32	4.86 31/32
4.866	Montreal	Dols. to £	4.86 9/32	4.85 15/32	4.86 1/32	4.86 1/32
25.225	Paris	Frcs. to £	124.05	124.05	124.10	124.05
35.000	Brussels	Bels. to £	34.99	34.98	34.95	34.94
25.225	Rome	Lire to £	89.10	89.08	89.13	89.12
12.107	Amsterdam	Florin to £	12.10⅜	12.09	12.08¾	12.08
12.107	Batavia	Gul. to £	12.10⅜	12.10	12.09½	12.08¾
18.159	Stockholm	Kron. to £	18.08	18.09	18.09	18.10
18.159	Oslo	Kron. to £	18.49	18.51	18.48	18.46
18.159	Copenhagen	Kron. to £	18.17	18.17	18.17	18.17
20.43	Berlin	Gmks. to £	20.40	20.40	20.40	20.40
24	Calcutta	Pen. to rup.	17 31/32	17 31/32	18	18
24.58	Yokohama	Pen. to yen.	22 31/32	22 30/32	22 15/16	22 29/32
*	Hongkong	Pen to dol.	24 1/16	24½	24⅜	24⅜

* Par depends on rise and fall in price of Silver.

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A Certain Seller

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THE ORIGINAL COLD WATER KALSOMINE
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BROOKS, ROBINSON & Co. Ltd.
59-65 Elizabeth Street, Melbourne

Editorial

The Price of Progress

We live in a world of change. A trite thing to say, but every now and again some indirect result or by-product of the changes taking place around us stabs us into realisation of how rapid the movement really is and what this disturbance of the old order may really involve. The effects or accompaniments are not all or always good.

Take the world of commerce. Time was when the shopkeeper never troubled to show his goods. He did not need to show them, or at any rate he acted on that assumption. A sign or symbol called attention to what he stood for and he left it at that. The bush has disappeared from the wine-shop, but the pole of the barber and the car-boys of the chemist are still with us—we do not visit the pawnbroker. To-day, however, neither the hairdresser nor the pharmacist is content with the ancient symbol. In some cases, indeed, he has modified or even abandoned it, but with or without it he makes full use of his shop window. He endeavours to show people just what he has to offer them. And so all through the piece. Recently we quoted the editor of an American hardware paper as saying that "four-fifths of all retail store sales are eye sales." Which being interpreted means that for every shilling's worth of unshown goods which he sells the retailer sells four shillings' worth of shown goods, goods which the customer actually sees in or about the shop and but for seeing them would not or might not have become a purchaser. To-day the shop window receives careful study from the dealer, but only as a frontispiece or an index. Inside the shop, on counters and on shelves, the goods are brought into view, not hidden out of sight as in the days of our grandfathers. Display is the keynote of modern salesmanship.

Inevitable as we believe it to be this change of attitude and policy has its dangers and drawbacks. The sight of goods thus spread out within easy reach is proving too much for people of easy morals. It is provoking or promoting thievish habits. In small places with only a few customers at any hour of the day the risk from this cause may not be very great. But in the large departmental stores—a reflection as they are of modern tendencies—the opportunity to steal is always present more or less and the losses by theft are considerable. From every large city of Australia complaint is heard on this score. The evil is growing and managers are at their wit's end in devising means to stamp it out or reduce it to a minimum. Detectives are employed in all the larger stores, but with acres of floor space and hundreds of visitors, it is impossible to watch every point and every person. Those thievishly inclined take advantage of the busy hours and crowded counters and are full of resource in covering up their tracks. They are not easily caught.

In Melbourne recently some outsider suggested that store detectives should wear uniform as this would indicate to weak-willed and easily-led pilferers that they were being watched and so prevent them from obeying wrong instincts. A naive suggestion truly, but one not likely to commend itself to those chiefly concerned. It assumes too much. It assumes that store thieves are weak people who yield to sudden temptation and that they know nothing now of a watch being kept for such as they. All the evidence goes to show that most of them enter the store with thievish intentions and that they know quite well the risks they are running. They know that a watch is kept and if watchers were marked off by their dress from the other assistants they would know better whom to avoid and where to go. So far from minimising the evil such a policy would swell it to still greater proportions.

More likely to deter these light-fingered gentry would be the knowledge that exposure and punishment will follow detection as surely as night follows day. At present, no such fear or feeling obtains or need obtain. Most of these shop thieves are women, sometimes women of good social position, and this affects the minds of those who have to deal with them when caught. The firms concerned frequently give the culprits a "good talking to" and let them go. One even hears of managers imposing fines, an impolitic and immoral proceeding. The computing of a felony is itself a crime. If and when extreme measures are taken and the cases brought into court sentimental magistrates are moved by the signs—well assumed for the occasion—of feminine distress. A caution is given or trifling fine imposed, and sometimes the press is warned not to publish names. As she leaves the court the unnamed "lifter" probably laughs behind her gloved hand—and resolves to be more careful next time. The evil is encouraged rather than otherwise by this chivalrous but unwise leniency, whereas if adequate punishment followed conviction reasonable hopes of getting rid of it might be entertained.

Signs of the Times

Australian banks are beginning to make special provision for the convenience of their women customers. An instance of such consideration was reported from Sydney some time ago and now at their new headquarters in Melbourne one of the associated banks has set apart a room for the exclusive use of feminine clients in transacting their business

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with the bank. In doing this Australia is following American precedent, although we be'ieve the practice obtains in other places than the United States.

There, however, the sex sentiment, if we may so call it, is carrying the business world still further. Even the hardware trade is responding to its influence. An American trade paper tells of a hardware firm who have quite definitely laid themselves out to cultivate the custom of women. The place is for them—not a corner or counter of it, but the whole. The service is theirs in arrangement and articulation, in plan and performance. Men are not forbidden to enter the shop, of course, but the aim and desire is to attract the attention and trade of their mothers and wives and sisters. Even in "hardware" it is realised that women are or may become the biggest buyers. Hence the decision to cater for them, rather than for their "lords and masters," to study from the shopping standpoint feminine preferences and even feminine prejudices.

To begin with location and accessibility. Men will seek out and enter "any old place," but their womenfolk are less accommodating or more particular. Realising this the firm under notice planted themselves in the most popular section of the retail shopping district. Their store is not large, but it is well placed and easy of access. With a good window display it attracts from the outside and once entered care is taken that it shall not repel the most fastidious. Cleanliness and neatness are everywhere in evidence and the stock is so arranged that any article can be reached by a person of average height. Open display tables run down the centre of the long room, and the cash drawer is at the very back of the store, so that before she can pay for her purchase the customer must pass the whole in review. Here, the firm feel, impression outweighs convenience. There's method in their madness. The window-trims are frequently changed and a good deal is spent on advertising. So far as it has gone, says our informant, the experiment has been eminently successful. Has it any lesson for Australia and New Zealand?

Hardware Organisation in Japan.

At the instance of the Japanese Government, two hardware men from that country recently visited the United States to study on the spot the organisation of the hardware trade and report the results on their return. The object in view is the organisation of the trade in Japan along similar lines, but just why the Government takes a hand does not appear. Kiichi Harada, one of the delegates, represents in Japan the Yale & Towns Mfg. Co., whild the other, Hisao Watanabe, runs a hardware shop in Tokyo. During their stay in the United States they interviewed, among others, the president and secretary of the National Retail Hardware Association, and apart from what their ears heard and their minds absorbed, they carried back with them a great deal of printed matter relating to the organisation and doings of the various hardware associations in the United States.

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5, 10 or 15 years.

Holders of stock and bonds maturing on 15th December, 1927, are invited to convert their holdings into this new Loan.

As small a sum as £10, or any larger amount (in even sums of £10), can be put into the Loan either by conversion or by Cash subscription.

The interest is free of **State Income Tax.**

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Money Order Post Offices and
Members of Stock Exchanges.

Commonwealth Treasury, CANBERRA.

EARLE PAGE, Treasurer.

Steel Manufacture in South Africa.

It is of interest to manufacturers that the Government is determined to push the Iron and Steel Bill through by means of a joint sitting of both Houses of Parliament in October. Certain financial negotiations are going on upon the assumption that the measure will become law before the end of the year. One or two interests are nibbling at the idea of setting up enterprises to use up the raw material produced at the State blast furnaces. Some progress is being made with the idea of starting locomotive and railway rolling stock works. We are informed that an English firm is considering the idea and its representatives have already had several interviews with the Government in order to ascertain what facilities and what protection would be offered.—"Industrial and Commercial South Africa" (August).

Hardware Amalgamation.

Last month we mentioned the proposed coming together of two of the oldest hardware and machinery firms of Sydney—Holdsworth, Macpherson & Co. Ltd., and John Keep & Sons Ltd. Since then the negotiations have been practicaly completed. The shareholders of both companies have agreed to sell their business rights and interests to a new company to be registered as Keep, Macpherson Ltd., with a nominal capital of £750,000. Broughton House, owned by the Keep company, is not included in the transfer.

Mr. F. A. Hawley will be chairman of the new board of directors, and with him will be associated Mr. J. C. Davis, a director and general manager of Holdsworth, Macpherson & Co. Ltd., and Messrs. J. L. Keep, E. F. Keep and C. A. Eves, directors of John Keep & Sons Ltd.

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Inquiry Column

TRADE INQUIRIES

During the month we have supplied answers to the inquiries indicated below. Firms with whom we have not already communicated who hold any agency connection with the firms, or handle any of the lines mentioned in this section, are invited to furnish us with particulars so that our lists may be complete.

Information Supplied.

"Primus" Stoves.—Name and address of agents supplied.

"Armco" Iron Products.—Name and address of agents supplied.

"Bonser" Pick Handles.—Name and address of makers supplied.

"Leader" Cooking Stove.—Name and address of makers supplied.

"Gem" Scone Irons.—Name and address of manufacturers supplied.

B. Lilly & Sons Ltd., Birmingham.—Name and address of agent supplied.

"Royal Windsor" Cooking Stove.—Name and address of makers supplied.

"Little Wonder" Bath Heater.—Name and address of manufacturers supplied.

"Duplex" Fencing Machine.—Name and address of manufacturers supplied.

Steam Jacketed Copper Pans.—Names and addresses of makers supplied.

China and Glass Ware.—Names and address of indentors in Sydney supplied.

The Blackman Export Co. Ltd., London.—Name and address of agents supplied.

"Eye" Brand Steel Eyelets and Rings.—Name and address of manufacturers supplied.

"Perfect" Gas Stove.—Names and addresses of makers and Victorian agents supplied.

Cleveland Twist Drill Co., Cleveland, Ohio, U.S.A. —Name and address of agents supplied.

Crescent Tool Co., Jamestown, New York, U.S.A. —Name and address of agents supplied.

"Champion" Grass Catchers for lawn mowers.—Name and address of manufacturers supplied.

Michael and Joseph Wing Ltd., Sheffield (steel and tools).—Name and address of agent supplied.

Nicholson File Co., Providence, R.I., U.S.A.—Name and address of Australian agent supplied.

Household Utensils.—Names and addresses of manufacturers and indentors in Sydney supplied.

Acme Manufacturing Co., Glasgow (clothes wringers).—Name and address of agents supplied.

Joseph Sankey & Sons Ltd., Bilston, Staffordshire, England.—Name and address of agent supplied.

Norton Co., Worcester, Mass., U.S.A. (grinding wheels).—Name and address of Melbourne agent supplied.

T. H. Prosser & Sons, London (tennis racquets). —Name and address of representative in Australia supplied.

Jno. Hy. Andrew & Co. Ltd., Toledo Steel Works, Sheffield, England.—Name and address of Melbourne agents supplied.

Stewart Skinner Manufacturing Co. ("Rain King" garden hose).—Name and address of agent in Melbourne supplied.

Information Wanted.

"New Way" Petrol Engine.—Name and address of agent wanted.

Art Metal Copper Goods.—Names and addresses of manufacturers in Melbourne wanted.

John Hatton, Stourbridge, England (spades and shovels).—Name and address of agent wanted.

Copying a Design.

One of our subscribers (60/216) wishes to know if he is at liberty to make and sell a fuel stove after the pattern of one he buys in the open market, either with or without slight alterations. If a stove or other article has no registration marks on it, can it be legally imitated?

A. At law there is nothing to prevent any manufacturer from copying an unregistered design, so long as he does not represent his article to be the work of another. But he must be quite sure that the design is not registered and that no patent or trade mark rights are involved. Registered designs have to be marked "Rd. No.——" (this is obligatory), and protection in any other form, or its absence, can be ascertained at the Patents and Trade Marks Office. Even if the way is legally open it is a question for every manufacturer to decide whether and how far he shall try to profit by another man's invention especially if that man is still in business.

A Question of Court Procedure.

One of our Victorian subscribers (61/215) writes: —"A man owes me £8 for house rent. I give him work to the amount of £2, and by the time he has finished, his rent account has increased by another £2/5/-. I sue him for the £8/5/-, and he issues a cross summons for £2. The cases are heard the same day, and separate verdicts are given. Later the tenant issues a distress for his £2 and costs. I tender the full amount to the clerk of the court, who refuses to take it and tells me to pay the constable. Is this correct procedure?"

A.—(1) When issuing your summons you should have given credit for the amount due by you and then your debtor could not have succeeded if he had issued a summons. (2) As a warrant had been issued in the verdict against you the constable was the proper person to receive the amount.

Correspondence

E'ectric Refrigerators.

To the Editor, "Hardware and Machinery."

Sir,—The first few days of summer weather has started us thinking of ice chests and refrigerators. The thought of the latter is strongest in our minds because of the suggestion of greater comfort and convenience. As this is a district in which electric power is much used in the home and the cost is low, we would like to sell the comfort and convenience of refrigerators, but unfortunately we have no millionaires on our mailing list.

These thoughts have resulted in our writing to ask you (frequent mention has been made of refrigerators in your journal) why it is that an electric refrigerator cannot be sold at a reasonable price in Australia. We should like to know whether it is a fact that refrigerators sold to the consumer for about £30 in America are £100 in Australia? If so, is this really necessary?—Yours, etc.,

REGAN'S LTD.
H. M. Regan, Governing Director.
Peel-street, Tamworth, N.S.W.
October 19, 1927.

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Sundry Credits

By J. Knibb.

Wonders of Radium.

Radium is the "liveliest" substance known to science. It is a million-fold more radio-active than uranium, and radio-activity is described as "the power of producing photographic or electric effects by a process identical with or analogous to radiation." The energy stored in an ounce of the pure metal would suffice to drive the "Mauretania" two or three times round the world, so says a London paper. The statement is made in connection with a report that borings at Runcorn, on the River Mersey, in England, have struck ground richly impregnated with radium. Pitch-blende is the substance from which it is usually derived, and that in very small quantities.

* * * *

Pennies and Pounds.

In 1902, according to newspaper reports, Mr. J. C. Penny, an American, invested the equivalent of £100 in a little store in the State of Wyoming. To-day he has nearly 800 stores all over the United States, and the invested capital is something like £6,000,000. Each pound, that is to say, has multiplied itself 60,000 times in a matter of twenty-five years, not to speak of what has been taken out of the business. Last year the combined sales exceeded in value £23,000,000. So say the newspapers. It may be all right. If so I can only exclaim with Dominie Sampson, "prodeegious," and express the hope that when he retires Mr. Penny will write a book entitled "The Romance of the Chain Store."

* * * *

Tyreless Tibet!

Tibet has only one motor cycle and no motor cars at all, at all, as an Irishman might say. It is not the Irish who have discovered this but the Americans. Their census of motor vehicles shows that Tibet or Thibet, to adopt the spelling of some, is the only country in the world with no motor cars. Surely Detroit will remedy this state of things. Here is a country with some two million people and not a single vehicle worth putting your foot in or inviting your friends to enter. Now that the deplorable fact is known, the situation will be taken in hand. I can see a string of American salesmen entering Lassa, the capital. I can see the Dalai Lama presented with ten cars of different make, each more beautiful than the others, each guaranteed to cover more ground on less fuel. Is the ground coverable on tyred wheels? Is Lassa open to the foreigner? Is the Grand Lama likely to use a motor car if he had it? I don't know, I'm sure.

* * * *

Growing Pains.

The accommodation or growing power of the English language is remarkable. New words or new turns or terminations of words meet you on every hand. Here in Australia our own Mr. Hughes has familiarised the public with "finalise" in the sense of completing an arrangement or proposal. The word is now frequently used among us in that sense and may yet establish itself the world over. From America we have "normalcy," the state of being normal; from England "backwardation," applied in trade journalism to prices slipping back to previous levels; and from Scotland "outwith," which seems to be syncnymous with "outside." "This proposal is outwith the contract." Dr. David Smith, of Belfast, uses the word in the same way and that without marking it off by inverted commas. None of these words has yet found its way into the Oxford dictionary except "backwardation," and then only in its technical or stock exchange meaning of a percentage paid by the seller of stock for delay in delivery.

* * * *

Whence the Best?

During the discussion of the Tariff Bill in the New Zealand Parliament it was urged that all dairying machinery should be placed on the free list. Special reference was made to churns, of which the Danes were said to be the best makers. Replying to this statement, the Minister of Customs said he was advised that the best large churns were made in Victoria from kauri pine. Coming from a British country, they would be free of duty under the proposals submitted. Victorian makers? I think I could name them in three guesses. This recalls a story told of the late King Edward when he was Prince of Wales. Accompanied by the Princess, he visited a dairying exhibition in London. The Princess, who was greatly interested in the display, said to the man in charge of the butter section, "Denmark sends the best butter, does it not?" "Well no, your Highness," said the steward, "Denmark sends the best princesses, but Devonshire sends the best butter." "Ah!" said the Prince, "He's buttering her up now."

* * * *

Romance of Rubber.

In a newspaper article I have seen it stated that the vulcanising of rubber was discovered accidentally. And the discoverer was an American hardware merchant, one Charles Goodyear, of Connecticut. The milky fluid from the tree was known before his time and was being used to an extent for waterproofing cloth and for other purposes. But Goodyear set himself to stiffen the gum by working sulphur into it. Sprinkle and knead as he might, however, the grey-black substance only became stickier. At last in disgust he flung the gummy mass or mess into the kitchen stove, slammed down the lid, and left it to "burn." When the fire died out the gum was found in the ashes, no longer sticky but hard and elastic. Stretched out and let go, it snapped back to its original shape. Goodyear knew that he had stumbled on a good thing, and if the American equivalent for "eureka" rose to his lips or even a little higher who shall be surprised? It was not Goodyear himself but a classical friend of his who named the discovery "vulcanising."

* * * *

The Big Four.

Even if accident had something to do with it, Goodyear's success was well earned, for he spent a full ten years experimenting with rubber.—1834 to 1844. About the same time and quite independently a similar "discovery" was made in England by Thomas Hancock. He, too, found that caoutchouc undergoes a remarkable change when mixed with sulphur and heated to from 240 to 310 deg. Fahr. This has often happened in different fields of investigation, speculative and practical. Men far removed from each other by space or time have reached identical conclusions again and again. Earlier than these inventors, American and English, was the Scotsman, Charles Macintosh, who in 1823 patented his process of waterproofing cloth by the use of rubber. Dissolved in naptha or other spirit and mixed with varying ingredients, the gum is spread thinly on the surface of the fabric, coat after coat, until it is rendered air-proof. This was the first application of rubber on a large scale, and the inventor has given his name to the rubber-treated overcoat. Later came another Scot, John Boyd Dunlop (1840-1921), doctor of medicine, and inventor of the pneumatic tyre.

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Novelties and New Samples

Electroplated Ware.

Woollett & Ross, of 119 York-street, Sydney, have been appointed Australian representatives for Lionel Blanckensee & Co., Birmingham, England, whose electro plated ware is already favourably known to these markets. The new range of samples introduce a number of pleasing new designs in biscuit barrels, epergnes, salad bowls and teasets, while cruets, sweets and rose bowls are shown in a number of different patterns.

Guns and Gun Cases.

Mr. C. E. Mayo, 209a Castlereagh-street, Sydney, is displaying on behalf of C. Bowerman Ltd., Birmingham, a comprehensive range of hammer and hammerless sporting guns, together with cases and accessories. Twenty-three different patterns are listed, and the confidence of buyers should be retained as each gun is proved for nitro powder to the maximum charge and critically examined and tested by experts before leaving the works.

Ice Cream Freezer.

Smith, Copeland & Co. Ltd., of 33-37 Regent-street, Redfern, Sydney, are showing the "Auto Vacuum" ice cream freezer, the chief feature of which is that cranking is not necessary. The freezer consists of two heavy metal cylinders, hermetically



sealed, one within the other, and surrounded by a double-walled vacuum jacket. The freezer works automatically, making ice cream in 45 minutes. There is no danger of brine seeping into the cream, as no connection exists between the ice and cream compartments, the ice going in one end and the cream mixture at the other end. The device is economical to use, owing to the small quantity of ice required. The two quart size uses only 8 lb. of ice, and thus one packing in sufficient not only to freeze the cream to the proper consistency, but also to keep it in that state for 10 or 12 hours. Neat in appearance, the apparatus is finished in white enamel, and while strongly made is comparatively light.

"Toncan" Metal: An Alloy Steel.

As factory representative in Australia and New Zealand for the United Alloy Steel Corporation, Canton, Ohio, U.S.A., Mr. Ross Duggan, of Cathcart House, Castlereagh-street, Sydney, is introducing to these markets a sheet metal iron and steel known as "Toncan" metal. Consequent upon the processes of treatment and finishing, this metal is of superior quality with special rust-resisting powers, and can be used for a wide variety of purposes. It is extensively used throughout America. With headquarters at Canton, Ohio, and offices in thirteen different States, the company claim to be the oldest alloy steel makers in America and have complete control of all processes under one management from the iron ore to the finished product.

Various Tools.

Colin Maxwell & Co., 379-81 Kent-street, Sydney, are now displaying several new lines on behalf of Ewald Ahrem, Elberfeld, Germany. They comprise new pattern motor socket wrench sets, No. 1555, which consists of six sockets for sizes from ¼ to ⅜ in., and a tommy bar with the universal ball joint. The sockets are made of a fine carbon steel carefully tempered to withstand hard work. The tommy bar allows of easy and speedy manipulation of nuts awkwardly positioned. The whole set is supplied in a finely japanned steel case making them very attractive. Watchmakers' and opticians' turnscrews are in three patterns. One set, No. 1625B, shows six individual turnscrews with nickelplated hand part and blue steel blades, while Nos. 1626 and 1627 contain extra blades in hollow nickelplated hand part.

Electrical Time Projector.

Horn & Co., of Bank House, Melbourne, have at their showroom a remarkable electric appliance known as the "Justro" electric time projector. This is a device for throwing the picture of a large clock face upon a wall or footpath for advertising purposes. The projector is fitted upon a pedestal which enables it to be directed, telescope-wise, wherever desired. The apparatus consists of focussing lenses, a powerful electric lamp, and a clock with a transparent dial. The light projects the dial through a window to any prominent position, and shows the time to the passers-by. Advertising matter is introduced by a slide, and forms part of the picture. The clock face can be adjusted to any size from a few inches to six feet in diameter, and shows perfectly sharp and clear.

It is said that in cities where this novelty has been used tremendous interest has been displayed by the public, the sight of the huge dial on footpath or building opposite having a fascination for the crowd, so much so that the police have had to clear the traffic.

Poultry Requisites.

Donohoe & Holohan Pty. Ltd., of 367 Post Office-place, Melbourne, are makers and suppliers of various appliances and devices which have found a market in many parts of the country where poultry farming is carried on. Many of these lines are quite

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inexpensive, and of a class which saves the user much labour and anxiety.

An automatic watering system known as the "Utility" is ingenious and effective. A cistern fed from tank or reservoir is provided, and cups are fitted from which the fowls can drink and which are automatically replenished as the water is used. A gable roof keeps the cistern clean and prevents birds from perching upon it. For chicks a special pattern is made. Several simple fountains of earthenware or glass are also provided for the young birds.

Another useful contrivance is a dry mash hopper. It is of galvanised iron, strong in construction and simple in action. When the birds perch on a tread attachment the hopper opens, and a certain amount of dry feed is released. Several sizes are made. The "Utility" type is in two sizes for twenty-five and forty birds per week respectively, while the "New Reliance" will feed thirty birds for one week.

A large range of poultry farming goods is supplied in addition to the above including green food cutters, brooders, and incubators.

Australian Kalsomine.

A new kalsomine is now being marketed by L. Rossiter Stahle & Co. Pty. Ltd., of 31 Queen-street, Melbourne. Known as "Cranco," this brand is prepared from kaolin of Victorian origin. The supply is practically unlimited, and its quality has been most favourably reported on by experts. After analysing these earths, the Department of Mines referred to the purity of the co ours in the natural state. In many deposits found elsewhere the whites, although otherwise of high grade, are tinged with blue. This local material is claimed to be free from such admixture. Six different colours are obtained in the raw condition, while two further shades are prepared by a simple process.

An inspection shows the various tones in the finished kalsomine to be excellent, and the powder of extreme fineness, an essential point if good work is to be accomplished. Modern machinery has been installed at the factory, enabling some six tons weekly to be turned out, with provision for speedy increase if necessary. An important feature in this class of material is the binding property, which must be beyond doubt to meet with the approval of users. This, the makers state, has received their most careful attention, and they emphasise the fact that buyers need have no fears on this point.

"Cranco" kalsomine is put up in packets for retail sale, the printing and general appearance of the line being execellent.

New Style Leadlights.

New Style Leadlights Pty. Ltd., of 440 Little Collins-street, Melbourne, have introduced an entirely different make of leadlight from the ordinary pattern. The inventor saw the drawbacks associated with any frame composed of small sections of glass. Although leadlights have been in favour for their decorative character, they are after all not a perfect structure. In exposed places they are apt to leak when damaged by stormy weather. Then again the small panes of glass are easily broken, or pushed out by the enterprising thief.

The new style leadlight is made of one solid sheet of glass, behind the leaded design, to which it is secured by a patented process. The whole thing is a solid unit, stronger, indeed than the ordinary window. There are other advantages. The usual type is difficult to clean, the corners interfering with the use of the cloth. The inside of the new style light is a smooth pane of glass, while the outside can be hosed clean, as there is no danger of water running through or of panes being broken.

These leadlights may be used for any purpose whatever, and in plain glass as well as in any coloured design which may be fancied. Moreover they can be erected by an unskilled person. There are special reinforced leadlights for front door panels or side lights, quite strong and secure. Another important point is that existing windows may be modernised by the addition of coloured designs at a small expense. In fact the new line can be supplied at a much lower cost than ordinary leadlights, as the labour involved is less.

English All.

E. H. Collis Pty. Ltd., of Beaucaire House, 103 York-street, Sydney, are displaying on behalf of H. & T. Vaughan Ltd., Willenhall, England, a comprehensive range of lock sets. A feature is a new distinctive pattern called the "York," which has a much lighter gauge plate and knob than those previously on the market, but it is fitted with the usual lock. Competitively priced and highly finished in antique copper are recommendations that should further its popularity among builders. Also new is a rebated casement lock set with knob on one side and lever on the reverse, which is obtainable in any style of finish. The double-handed stamped steel case rimlock No. 610 is now being made with a reversible bolt creating a four-way lock. This is catalogued No. 710 and carries the standard 1⅞ in. brass "Oritur" furniture.

John Rabone & Sons Ltd., Birmingham, have issued a brilliantly coloured catalogue, their first since the outbreak of hostilities in Europe. An alteration, not previously practised, and which is particularly noticeable, is that the list prices are subject to a discount, also that reduction in prices manifests itself clearly. 1360 is the listed number of a new type of line level. Weighing but half an ounce, it has at each end a lug which is cast with specially cut slots to ensure against it shaking from the line, while its extraordinarily light weight prevents any sagging of the line.

A complete range of garden tools is being displayed on behalf of William Hunt & Sons, The Brades Ltd., near Birmingham, among which is a new pattern edging iron No. 605. Solid tanged and ferruled with crutch handle, it varies from its predecessor insofar as it has a perfectly smooth and flat working face in lieu of the hollow formed by the socket as incorporated in the older pattern. All first quality digging spades and forks are now being manufactured without any weld, thus minimising any possibility of breakage of the socket.

Brushing Lacquers.

Hardie Trading Pty. Ltd., of 581 Little Collins-street, Melbourne, are now marketing "Spartan" brand brushing lacquers. This is essentially a household line which the hardware store should find it profitable to stock. The company have already perfected a spraying lacquer which is largely used by the furniture trade, and this new product is based on the same principle. It is of the nitro-cellulose type, which means that boiling water or petrol will not impair its finish, while it can be easily cleaned with soap and water.

What is needed for domestic use is a preparation which is simple to apply, requiring no expert knowledge: and though drying very rapidly, it must give a bright surface which is capable of being cleansed by ordinary household methods without injury. The "Spartan" lacquers dry in half an hour, and are recommended for all furniture and wickerware, dressers, picture frames, ice chests, bathroom fittings, and similar articles. The colours supplied include all shades which can possibly be asked for, as well as white, black, and clear, and wood finishes such as oak, walnut, rosewood, mahogany, and maple

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grey. The standard colours may be mixed to give any desired shade to harmonise with floor coverings or furnishings. They can be combined with gold and silver enamels, and simple instructions are supplied as a guide for the user.

For dealers who have found some lacquers subject to certain defects which render them unsatisfactory, it is announced that this brand has been carefully tested, and the makers are confident of its freedom from any tendency to "lifting," while the smell is not objectionable, and entirely disappears after a few hours. Those who are familiar with the revolutions in motor finishing which was introduced by the use of nitro-cellulose lacquers in recent years will appreciate the adaptation of this principle to a reliable and inexpensive preparation for the home.

Packed in attractive tins for retailing, an excellent display could be made of a selection of this useful line. Wherever it has been intelligently displayed and efficiently demonstrated the results have been gratifying to both store and purchaser. "Spartan" brushing lacquer is put up in quarter-pint, half-pint, pint, and quart tins, Imperial measure.

Improvements in Gas Stoves.

Galliers & Klaerr Pty. Ltd., of Inkerman-street, St. Kilda, Melbourne, have issued an attractive catalogue of their gas cookers. For many years they have been manufacturing fuel stoves, known to the trade as the "Federal," "National," "Model," and many others. They have now entered the field with gas stoves, which are sold under the names of "Front Line" and "Maxim." Several departments of their factory have been allotted to the different processes involved. Every detail of the work is carried out under their own roof, from the casting of the iron right through the various operations to the enamelling and plating.

The aim has been in the case of the "Front Line" series to provide a type of stove embodying every modern feature at a moderate price. Improvements have been introduced which should find approval with users. One is in connection with the top plate. A patented "Smooth Top" flat plate is fitted which can be laid over any set of the boiling burners, permitting several vessels to be used with the one burner, at the same time retaining the heat beneath. This special plate may be turned back out of the way if neecssary. It may also be attached quite simply to any stove.

In these cookers a new design of burner, the "High Efficiency," is used. This type is claimed to give greater heat and burn less gas than others. It emits a circle of small, hot flames, spreading evenly over the bottom of the vessel. The burner cannot become clogged by grease, nor extinguished by liquid boiling over. Elaborate tests have shown this class of burner to merit the claims of economy and cleanliness.

Another useful appliance which may also be had is a plate rack and enamelled back. This stands upright, keeps the wall from splashes of grease, and holds plates for heating. The plate rack folds up out of the way and slides down the back when not in use.

These additions may also be had with the "Maxim" cookers, which are made in the best possible style, the oven being lined with grey porcelain enamelled sheets having rounded corners. Every part of the lining is removable for cleaning. The hot plate of this stove, together with taps and door, is highly polished and nickel plated. The white enamelled door gives a fine appearance. The "Maxim" is made in three patterns: the X, and Nos. 1 and 2. The latter numbers may be had with enamelled steel exterior, presenting front and sides of white. Exceptional care has been exercised in the whole of the details connected with the cookers, and the makers have complete confidence in their quality. The porcelain enamelling is of a high order, and with the installation of the plant for this work the firm are prepared to supply anything in the way of enamelled plates, signs, and similar commodities for other manufacturers or for the trade.

Tools and Sundries.

Horn & Co., of Bank House, Melbourne, represent several Continental manufacturers, and carry at their showroom complete ranges of samples of the various lines, for wholesale trade only.

Clausen & Petermann are manufacturers of "Greif" brand tools and household appliances. Useful little hand knife grinders, of different sizes, are made to clamp to bench or table. There are a number of different sizes, and one or two patterns are fitted to sharpen scissors also. All are fitted with corundum wheels, finished in black enamel, strongly made, and remarkably cheap. Another tool is a two-gear breast drill of unusual design. The gear is instanly changed by moving the handle from one side to the other. A good domestic appliance is a French bean cutter. This is attached to the table, and a circular cutter operated by handle slices the beans rapidly and without effort. It effectively removes the drudgery from this task.

W. & W. Gunther, of Ransbach-Westerwald, are makers of a range of whetstones, razor hones, bench stones, and similar abrasives of all kinds. There are artificial stones for scythes, and knives, and natural stones for special tools. The "Wlegu" safety blade hone is neatly set in a polished wooden case, and fitted with a nickelled blade holder. This is a compact little article to sell at a low price.

Hedermann, Evers & Co., of Hamburg, make all patterns of egg beaters, alarm clocks (including several novelties with coloured mountings and unique musical alarms), family scales, tape measures, and egg timers. A line of pot cleaners deserves special mention. Besides the usual metal ball type, one pattern is fitted with a wood handle, made so that the cleaner can be quickly detached and replaced. This should sell well. A range of vacuum flasks, the "Heco," will interest the trade. The container fits, is instantly removed from its case for cleaning, the finish is good, and the flask may be called unbreakable. No ordinary fall or shock is able to injure it.

Baverische Metallwarenfabrik, of Nurnberg, display a fine selection of brass and nickelled ware, glass fitted. Fruit stands of moulded glass are mounted on heavy plate, the glass in various colours being most attractive. The designs and decorations are unique. Vases are of the same materials. Another series of coloured earthenware trays, biscuit boxes, and hot water jugs should be inspected. These have combinations of colour, white and yellow, white and red, and plain white and nickel, and the prices are most reasonable. Fruit holders are also made of brass and china, or glass lined.

From Frederich Barfels, of Darmstadt, come light metal rules, made of a light and stainless aluminium alloy. They fold in 12 in. sections, extending to 3, 4, 5, or 6 ft. The figures are deeply etched, can be easily read at a distance, while the polished edges and joints with brass springs give the rules a fine appearance.

G. A. Hartner, of Ebingen, offers special tungsten steel drills of hard quality. The grey colour of the metal gives an indication of the temper of these drills.

Other samples are from Carl Winzerling, Volnarstein, Ruhr (padlocks); A. Bartosik & Co., Luckenwalde (furniture mountings and fittings); Jena Glaswerk Schott & Gen., Jena (heat resisting glass, new opal glass cups and saucers, and table ware).

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Pottery and Glassware

Continental Goods.

Horn & Co., of Bank House, Bank Place, Melbourne, are agents for Porzellanfabrik Cortendorf, manufacturers of a large range of china fancy goods and ornaments. A host of figures of different kinds, suitable for gifts, and decorated in attractive colours, are among the samples from this factory.

New Foley Lines.

Cheetham & White Pty. Ltd., of Cromwell Buildings, Melbourne, have landed a further range of new decorations in E. Brain & Co.'s Foley teaware. Included in these samples are supper sets consisting of one tray, and six octagonal muffins, also square muffins in various patterns. These are executed in the characteristic Foley way, the designs exhibiting originality with restraint.

Another of the firm's newest designs is No. 506, a set decorated with coral and orange colours in attractive combination. Again there is a new pattern known as "Autumnal Tints," representing the red-brown colourings of the chestnut foliage. The demand for strong colours is well met in several picture designs, which are specially popular in foreign markets. One embodies an illustration of a sailing ship, on a ground which is described as of brilliant blue, with a peony decoration executed in strong enamels. Pattern No. 513 is yet another style which carries a variety of colours, while a fuchsia decoration upon an orange ground is excellently done.

Japanese and Other.

Mr. J. B. Hogan has effected considerable alterations to his premises at 169 Clarence-street, Sydney, enabling him to display more advantageously his comprehensive range of high-grade china and glassware.

Nagoya Seitosho is represented by white and gold semi-porcelain cups and saucers associated with which are floral, futuristic scenes in black and white, and bird decorations, the tonings being the work of an artist of quality. English shapes such as Worcester, Minton and Paris, are shown, but special designs will be forthcoming to anyone placing orders. "Amy" comes in the English section of bone china, and is characterised by three gold lines around the top of the cups and extreme edge of the saucers.

Cut and plain crystal from the Nashida Works, Japan, comprises stemmed wine ware, spirits, jugs, goblets, etc. For articles so reasonably priced it is surprising the quality and clearness of this crystal ware, which suggests that only to be observed in much higher-priced cut crystal.

American "Imperial" prism, rosemary and diamond are catered for in the moulded glassware.

These can be supplied either in bulk or minimum packages.

Culture and Restraint.

It is noticeable that most of the best examples of china and earthenware maintain a simplicity of shape which has come to be recognised as the "best taste." Some years ago there was a tendency to exaggerated shapes and decorations, but the sanity and restraint of a few leading makers were largely responsible for the elimination, in the main, of unnecessary elaboration of colour and shape.

The English "Pottery Gazette" credits E. Brain & Co. Ltd. with leadership in the campaign of twenty years ago against too fanciful designs in chinaware. They sturdily refused, it is explained, to produce patterns so ornamental as to be difficult to clean, or decorations more showy than the occasion required. The opinion is expressed that this effort by the makers of "Foley" china has left its mark upon the entire industry. Even to-day, when public taste leans towards stronger colours and brighter effects, there is still to be found in recent productions a saving grace of restraint in general design, a result of the principles laid down many years ago.

The endorsement of this canon of simplicity by a majority of users through the years would appear to have fully vindicated the judgment of these pioneers of the movement. It goes to confirm the conviction of the great artists of all ages that the things which best follow the lines of real utility, strength, and simplicity will always possess the greatest appeal to the mind.

Staffordshire Crystal and Lighting Shades.

Among several new agencies recently secured by Henry C. Dobson Ltd., of 407 Kent-street, Sydney, is that of Stevens & Williams Ltd., Brierley Hill, South Staffordshire, on whose behalf is now exhibited several noteworthy lines of "Royal Brierley Crystal" glassware. The range, comprising table glass, vases, bowls, jugs, etc., is very diversified as regards shapes and decorations. The purity and brilliance of this firm's glassware is the better appreciated on account of not being over-ornately cut or covered by design. The cutting is sharp and deep and therefore particularly luminous and the decorations harmonise artistically with the various shapes of the pieces. The latter, too, are in some respects distinct from what has been lately seen here. Some lines, expressly produced for these markets, while being of the same high quality crystal and craftsmanship, are rather less ornately decorated, and therefore easy in price.



Of special interest is the introduction of cut crystal trophies, a worthy alternative to the customary silverware presented as club prizes. These are represented in delicate goblets, elegantly shaped and

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decorated cups of different kinds and sizes, and also some very fine bowls. Provision is made on each piece for the engraving of an inscription to commemorate the occasion on which it was won, and each piece bears on its base what is virtually a hall mark, viz., the imprint of the "Royal Brierley Crystal" brand.

The same manufacturers are likewise represented by a number of coloured electric lighting glass shades which come from their other works at Tipton, where they trade as the New English Glass Manufacturers Ltd. Both new shapes and colour effects are shown in this range, affording relief from the over-abundant plain, mottle and marble saucer-bowl hanging shades now so commonly in use. In quite a number of these new lines the beauty of delicate floral and other decorations are no less to be appreciated by day as when lit up at night.

Excellent Range of English Ware.

J. W. Roberts & Son, of Faysworth House, Pitt-street, Sydney, are showing supplies of overlaid blue cut crystal from John Walsh-Walsh. Said to be the latest London fashion, this product of the glass makers' art makes an artistic appearance. The very heavy cuttings and fine acid etchings reveal the crystal beneath the blue tint. Included in the display are vases, toilet table requisites and utility lines, such as sugars, salts and perfume bottles.

Among the ordinary commercial lines are tall fruit glasses very daintily cut to match the bowl. Water jugs are numerous in shape and design, goblets being made in harmony. They have combinations of cutting and acid etching. A new range of small cucumber or sandwich trays is worthy of special mention. Table lamps are of special merit, one prominent sample having flower holders at the base on an oxidised silver stand.

Another line said to be coming into fashion is the tinted glass. A Georgian tapered water jug, amber tinted, and with goblets to match, arrested attention. Very beautiful were the other varieties and designs, including the ruby, green, blue and amber. Set on crystal stems, the tinted glasses show out in striking contrast. Most beautiful of all was the ruby, the rich, though soft, tones contrasting vividly with the alternating crystal.

Spirit decanters are shown in a wide variety of shapes and designs, the Georgian shape with Kenilworth cutting and etching being specially noticeable. Norwegian and amethyst tinted glassware makes a splendid exhibit, and there is a large variety of designs and shapes in the smoke tinted glass. A grand array of full crystal glassware is marked at competitive prices.

In the pottery section there is a noteworthy exhibit from Josiah Wedgwood & Sons Ltd., of Stoke-on-Trent, England. Hand painted and decorated china is shown in a choice selection of vases, teas, dinners, bowls, jars and other ornaments. The subjects treated by the artist are illustrations of old English and Japanese fairy tales. The cone and lavender china is remarkable because the colours run right through the solid body.

From the Bourne and Leigh potteries come dinners and teas, bowls, fruit services and utility lines generally, handsomely treated with floral and fruit decorations.

Pilkintons send dinner ware, teasets and ornaments in fine lustres, matte blue and orange vermillion.

New Patterns From Old England.

Lewis & Carmichael, of 277 Clarence-street, Sydney, have a splendid range of pottery from Baker & Co. Ltd., Fenton, England, whose products are distributed to country clients through wholesale houses in Australia.

Noticeable is the Chintz all-over pattern in dinners and teas in round and octagonal shapes. The whole gamut is run under the one pattern and even includes candlesticks. This fashion is said to be the latest vogue in England. Very pretty is the "Pomona" shape, and the "Diana" pattern is striking with its blue panels relieved with festoons of flowers and lace. The citron-shaped in cream-coloured glaze, is a relief from the dead white of other earthenware. The Grecian keyboard design is said to be the oldest border extant, and the whirligig of time has again brought it into fashion. Also coming into favour is the old English rose design in all colours, and the sponged wave of olden days, with its garish colourings, is finding favour in America for use in country bungalows and seaside resorts. Dinner sets in mazara blue with golden floral borders are strikingly handsome. In the silhouete design the body is done in rich colours, in striking contrast to the more delicately coloured borders, which are relieved with silhouettes.

The Crown Staffordshire Porcelain Co. Ltd. have an exhibit of high quality, many beautiful designs and colcurings being shown. A new pattern is based on a double Greek border in black, technically known as the egg and tongue style. Between the two borders, ¾ in. apart, is another border of dancing figures in white marked on a ground colour of green. The two colours and their proportion in the design, namely the double black border, and delicate ground colour behind the white dancing figures, are very effective. Besides the regular service sets there are some choice decorations in vases and flowered wicker baskets in numerous shapes and ranges of figures. Beautiful shapes and designs are being shown in English white bone china, and seeing that the price is only a little higher than that charged for the white and gold, and that a greater margin of profit is shown, it should become a favourite line with retailers. English bone china is fired to such a high temperature that hot liquids and hot substances cannot crack or break it. It is interesting to compare the colouring of bone china with the dull blue of felspathic porcelain. Among artists in England a tendency is noticeable to return to the old Chinese patterns. Hence we have the old willow pattern, which has retained its popularity for so many years. The imitation Chinese designs in gold on red and blue bodies are very attractive.

New Welding Rod.

The Lincoln Electric Co., of Cleveland, Ohio, U.S.A., are marketing a line of high-grade "dipped" welding rods under the trade name of "Stable-Arc" as a companion for their "Kathode" welding rod.

The "Stable Arc" welding rod is obtainable in standard 50 lb. bundles wrapped in burlap and in lengths of 14 in. It can be secured in longer lengths in diameters up to ½ in. if desired.

It is claimed that this rod permits of much higher current than has been used heretofore, with resulting greater speed, and hence a lower welding cost for labour. Current densities of 15,000 amp. and more per sq. in. can be used. It is also said that this greater heat gives better penetration and a much smoother finish to the bead. Not only so but an annealing action results which increases the ductility of the weld and gives a greater elongation.

The decrease in "splutter" of the arc gives less spattered metal, therefore more actual metal is deposited per pound of rod. This higher current gives a remarkably clean finish on heavy welds of more than one layer, so that very little brushing or cleaning is necessary between beads.

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Make the Advertising Pay

A Page of Hints and Helpful Criticism

Send Us Your Ads. ∴ Let Us Help Solve Your Problems

Illustrations.

Last month we had a little discussion on the subject of the advisibility, or otherwise, of advertising a number of items in one small advertisement. We now reproduce a six-inch single column proclaiming the virtues of one article only. It appeared in the "Ladies' Home Journal," and is an excellent example of how to make an attractive proposition out of a somewhat commonplace subject.



We should like to see the work-basket more prominent on the arm of the chair. At first glance one is apt to wonder what connection the top portion of the illustration has with scissors, but the presence of a work-basket makes all the difference. However, the whole "get up" of the advertisement is strong enough to overcome that small defect.

Note the "atmosphere" of needlecraft created by the splendidly designed border!

It is not difficult to realise how much stronger, and more lasting in effect is such an advertisement—with its informative text—in comparison to one of the same size containing a list of eight or nine different articles.

The subject of illustration is far too large to deal with in the limited space at our disposal, but we can go into a few of the main points. One of the first principles of successful illustration is correct balance, as well as a proper grouping of the various parts. Note how naturally the eye travels from the mother and child to the obliquely placed scissors, and so down to the bold name block "Wiss Scissors, Wonderful Cutters."

No little skill is required to get so good an effect in so small a space!

Another important point is accuracy in illustration—especially in technical subjects. It is a mistake to think that "near enough" is good enough. By all means keep the drawings as simple as is consistent with necessity; by so doing accuracy and clarity in reproduction are more easily maintained, but watch that technical points—which may be strong selling points also—are not unduly sacrified.

A further reason for accuracy in illustration is that first impressions are generally the strongest, and many a prospect makes his first acquaintance with a subject through an illustrated advertisement.

Damaged Goods.

Some time ago the following appeared in "Directograms," the house organ of E. W. Husen Co., Detroit, U.S.A. We reprint it from "Printed Salesmanship":—

The other day we received a circular describing an adding machine.

We were interested in buying an adding machine, but after retrieving this folder from the waste-basket two or three times, and attempting to get it into readable shape, we finally gave up and decided we'd have to find out about that particular adding machine in some other way.

The circular was printed on light-weight stock, 17 by 22 inches. It was folded in a flatish lump about 3 by 5 inches in size, and then doubled over and sealed into a small mailing wrapper, the mailing size being about 1½ by 5 inches.

In attempting to get it unrolled and unfolded, we tore the circular vertically and horizontally, and even then it persisted in getting back to its rolled form in spite of all we could do to unfold it.

This particular circular was well printed and copiously illustrated; probably the sales talk was convincing. But the whole effect was nullified by the manner in which it was mailed. It would be a patient prospect indeed who could refrain from casting it into the waste-basket after one attempt to get it opened.

A piece of direct advertising, as it comes from the printer, may be of physical perfection. A folder, or broadside perhaps, printed on the finest of papers; the art work distinctive, the layout original and attractive, the presswork perfect, the copy persuasive and convincing.

But in too many cases these perfect pieces of printed matter lose most of their sales value when they reach the prospects, because of the manner in which they are folded or creased or damaged in mailing.

If you must send your message in "broadside" form, for results' sake be sure that it will reach your prospect in presentable and readable condition.

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Personal and Social

Elected a Director.

To fill the vacancy caused by the retirement of Mr. Harvey Patterson, Mr. H. R. Lysaght, O.B.E., has been elected a director of the Broken Hill Proprietary Co. Ltd. Mr. Lysaght is managing director of John Lysaght (Australia) Ltd., chairman of directors of Lysaght's Newcastle Works Ltd., and a director of the Australian Bank of Commerce Ltd., the Royal Insurance Co. Ltd., and other public companies. His home is in Sydney.

Manufacturing President.

In place of Mr. Robert Duncan, who retired at the end of two years, Mr. F. N. Simpson has been elected president of the South Australian Chamber of Manufacturers Inc. Mr. Simpson is a director of A. Simpson & Son Ltd., Adelaide, being the younger son of the late Mr. A. M. Simpson. A tablet at the door of the Chamber's headquarters in Pirie-street carries this slogan: "Promote the development of Australian manufactures and products," and in his opening address the new president urged that this should be given effect by the members, as far as possible, in their household budgets.

Hymeneal.

By way of expressing their congratulations to Mr. Norman L. Nock, a director of Nock & Kirby Ltd., Sydney, on the occasion of his marriage on October 22 to Miss Ethel Bradford, the senior members of the staff tendered him a complimentary dinner and presented him with a handsome cabinet of cutlery. The presentation was made by Mr. J. A. Livingstone, with whom was associated on the committee for the function Mr. Richardson, Mr. Corsellis, Mr. Pocock, Mr. Sellar and Mr. Rafter. Others who assisted were Mr. Prince, Mr. Roy Allan, Mr. W. Baines and Mr. McEachren.

Trade Cricket in Melbourne.

Following are the names of the newly elected officers of the Hardware Trades Cricket Association:—President, Mr. J. Hislop (Wunderlich Ltd.); secretary, Mr. C. Cookman (Wunderlich Ltd.); treasurer, Mr. Arthur Durrant (McPherson's Pty. Ltd.). The executive consists of Messrs. J. Ogle (William Adams & Co. Ltd.) chairman; G. Oxnam (Cyclone Fence & Gate Co. Pty. Ltd.), C. Kinross (A. E. Atherton & Sons Pty. Ltd.), A. Manning (Evans Motor Spring Works Pty. Ltd.), H. Bruce (G. J. Coles & Co. Pty. Ltd.), Victor Moorehouse (Dorman Long & Co. Ltd.).

The new secretary, Mr. C. Cookman, was the first treasurer of the association, and with Mr. J. Ogle shares the credit of being amongst the founders of hardware cricket in Melbourne. A smoke concert was held on October 11, when a most successful evening was enjoyed.

It is pleasing to note that the strength of the association has been augmented by the joining up of six additional clubs. The newcomers are G. J. Coles & Co. Pty. Ltd., Evans Motor Spring Works Pty. Ltd., and Eliza Tinsley Pty. Ltd., while James McEwan & Co. Pty. Ltd., William Adams & Co. Ltd., and Bennie, Teare & Co. have re-entered. It is hoped by next season to enrol still more teams. If this can be accomplished the association should play an important part in Victorian junior cricket. There should be no difficulty, the officers think, in obtaining another half-dozen teams, bringing the total strength up to twenty.

This year a team will be entered for the inter-association matches at Christmas time, and a fine combination should be placed in the field.

The position of the teams in the competition is:—Payne, 8 points; McPherson, 7; Tinsley, 6; Cyclone, Evans, Danks, Atherton, 4 points each; Bennie Teare, Dorman Long, Coles, and Adams, each 3 points.

Death of an Ironmonger.

Mr. H. L. F. Surplice, who died on October 10, was a member of the firm of W. H. Surplice & Sons, ironmongers, of Bondi Junction, Sydney. His minister of the Church of England at Woollahra conducted the funeral service and paid a warm tribute to the deceased. A widow and two sons survive, and they, together with Messrs. Percy, Fred and Frank Surplice (brothers), were the principal mourners.

Death of Mr. Simon Harvey.

Mr. Simon Harvey, who died at Millswood recently in his eighty-fourth year, was well-known in the timber trade of South Australia. From his native Cornwall he came to that State at eighteen years of age, and before long was engaged in buying and selling timber on his own account. Nearly fifty years ago he opened the Globe Timber Mills at Port Adelaide, and only disposed of this business four years ago. Before then he had secured an interest in the Lion Timber Mills, also at Port Adelaide, and this interest is still in the family. As became a Cornishman, the late Mr. Harvey was an ardent Methodist, and that communion had his generous support first in the city of Adelaide and afterwards at Unley, where he had resided for many years.

Death of Mr. T. W. Hoskins.

A younger brother of the late Mr. G. J. and Mr. C. H. Hoskins, both of whom died last year, Mr. T. W. Hoskins has also joined the great majority. He died at Burwood, Sydney, on October 15, aged sixty-nine years. A native of Victoria, he was for a time associated with his brothers then trading as G. & C. Hoskins Ltd. He handled their interests in Melbourne, and when with Mr. Mephan Ferguson, of that city, they divided the contract for supplying the pipes for the Coolgardie water scheme, he went to Western Australia in their interests. Returning to Sydney in 1901, he established at Pyrmont the Sheffield Steel Works, which he carried on until 1913, when he retired from active busienss. He leaves a widow and family of four—one son and three daughters.

Death of Mr. J. H. Carmichael.

The death occurred in Brisbane on October 12 of Mr. J. H. Carmichael, of Lewis & Carmichael, manufacturers' representatives, 277 Clarence-street, Sydney. Mr. Carmichael, who lived in Brisbane, had been in ill-health for some time, and was enjoying a walk after dinner when he collapsed and died before aid could be called. He was a director and business manager of the Queensland Lime & Cement Co. Ltd., and had other business interests in Brisbane. A man who did a good deal of charitable work, he was kind and considerate, and his sterling qualities won for him a wide circle of friends. Chosen by the Commonwealth Government as the sole representative of Australian employers at the League of Nations Convention at Geneva in May, 1927, he was unable to accept the appointment owing to ill-health. He was 49 years of age, and leaves a widow and two children.

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Interstate General News

Cast Iron in the Foundry.

At a meeting of the Chemical Society of Victoria on October 28, Mr. E. Howell contributed a paper on "The Microscopical Study of Cast Iron and its Relation to the Foundry."

Shop Damaged by Fire.

About four o'clock on the morning of October 8 a fire was discovered in the building at Rangiora, New Zealand, where J. Johnston & Son have their hardware shop. Before the flames could be quenched the firm's stock was damaged considerably by fire and water. With the paper all burnt off, the bulk stock of bolts and nuts presented an unusual sight. The fire originated in a billiard saloon above the shop run by another tenant. Other occupiers also suffered. Building and stock, it is understood, were insured.

S.A. Chamber of Manufactures.

Erected at a cost of £45,000, a new home is now occupied by the South Australian Chamber of Manufactures. The new building in Pirie-street, Adelaide, rises to five storeys above the street level, but the foundations are strong enough to carry another four. This addition to nine storeys will be made at a later date. The framework is of steel—reinforced concrete piers and girders filled in with brick. Steel window frames have been installed all through, and the building is as fireproof as it is possible to make it. The Chamber will occupy the whole of the first floor.

The Cash Orders System.

"It is the considered opinion of members of the Institute of Accountants in South Australia, expressed at a special general meeting called to examine and discuss the subject, that the limited advantages offered by the cash orders system are considerably outweighed by the opportunity it affords improvident persons to incur avoidable debts by purchasing goods which are rather luxuries than necessities, and that this opinion be respectfully submitted to the Treasurer of this State." The foregoing resolution followed a debate during the month of the body mentioned on the merits and demerits of cash orders and was agreed to unanimously. Eleven of the members took part in the discussion.

Manufacturing Extensions.

The Efco Manufacturing Co. have made preparations for enlarging their premises at Arncliffe, Sydney.

The works were established less than eight years ago by Faeer & Sons with only four employees. Now that number is multiplied by ten and when the extensions have been finished others will be employed.

A wide variety of articles are turned out, including builders' hardware, engineering castings, pressed metal goods, electrical refrigerating fittings, and ice chest fittings. An important feature of the firm's activities is the quantity of electro plating of small and large goods in all finishes, such as brass, nickel, zinc, and oxidised and antique colours.

The builders' hardware is packed under the "Rossda" label.

Branch Store Burned.

On the morning of October 25 the branch store at Branxholm, Tasmania, of Wardlaw Bros., was destroyed by fire. The firm who are general merchants—drapers, ironmongers, grocers and butchers—with headquarters at Ringarooma, had fully stocked their store at Branxholm against the approaching holiday season and with the exception of about £100 worth saved from the wreckage the whole was destroyed. The living quarters and furniture of the manager, Mr. Cyril Foster, were also consumed. An insurance policy for £2000 was carried, but this represents little more than half the loss. The premises were rented and the firm hope to secure others for an early resumption of business. At the rear of the butchers' shop was a petrol engine used for small goods and the ignition of fumes from the tank was responsible for the outbreak.

Federal Bounties.

During the past four years the fo'lowing bounties have been paid by the Commonwealth Government:—Iron and steel, £882,923; wine, £687,935; sulphur, £129,409; canned fruit, £129,191; cotton, £37,039; shale oil, £1040; cattle export, £4910; meat export, £141,572; a total of £2,014,019.

These figures were given in the House of Representatives at Canberra on November 2 by the Minister for Trade and Customs (Mr. H. E. Pratten). The question was raised by the leader of the Opposition (Mr. M. Charlton) and a schedule of the names of the recipients and the amounts paid was attached to the ministerial reply.

Business Names in Victoria.

Introduced into the Legislative Assembly of Victoria by two members of the Ministry, the Business Names Bill seeks to tighten up the law governing the registration of those who do business under anything other or more than their own full or proper names. The registration of companies and of partnerships is already imperative under different Acts of Parliament, and where registration has been affected under either of these measures nothing further will be required from the company or firm concerned. Otherwise the parties must be registered under the new Act—assuming that it becomes law—and comply with its somewhat severer requirements.

All this is covered by Part I. of the Act, while Part II. forbids generally the use as part of any trading title of the words "royal," "king," "queen," "crown," "empire," "imperial," and "commonwealth." Only with the consent of the Governor in Council can either of these names or titles be assumed for business or professional purposes.

Australian Standard Specifications.

The Australian Commonwealth Engineering Standards Association announces that the following tentative Australian standard specifications will shortly be reviewed for issue as Australian standard specifications:—No. C. 18-1926 T., dimensions and resistances of bare annealed copper wire for electrical machinery and apparatus; No. C. 20-1926 T., moulded flat top insulating bushes; No. C. 22-1926 T., watertight glands for electric cables; No. C. 29-1926 T., metallic resistance materials for electrical purposes.

The policy of the association is to issue such specifications in tentative form for a period of twelve months, during which time constructive criticism is invited. All criticism submitted to the association is referred to the sectional committee concerned for consideration when the specification comes under review.

Manufacturers, users and others interested in the specifications in question are invited to submit suggestions for the revision of the tentative specifications to be forwarded to the headquarters of the association, Macleay House, 16 College-street, Sydney, not later than November 15.

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Commonwealth Tariff Decisions

The following decisions of more or less interest to the hardware trade have been made during October. By way of explanation it should be mentioned that the double number on the left of each entry represents the tariff decision number, while the number to the immediate right is the tariff item, and the date following (25/1/26, and so on) the date on or from which the new decision took or takes effect:—

Electrical Appliances and Materials—
27/818 Eletctrodes, Graphite, for use in the production of Iron and Steel. (By-law No. 563.) — 415a (1) — 9/8/26
Note.—The reference to Electrodes, Graphite, for use in the manufacture or repair of Electric Furnaces, in Consolidated By-laws, page 90, and in By-law No. 71, and T.D. 25/152, are to be cancelled. (By-law No. 561.)

Machinery, Machines, etc.—
27/825 Motors, Electric, viz.:— — 174 — 17/3/26
Auto-Synchronous
Synchronous
Synchronous Induction
And Exciters imported with and for use therewith, but not including regulating starting and controlling apparatus. (By-law No. 553, Electrical.)
Note.—The reference to Motors, Synchronous, for incorporation in X-Ray aparatus manufactured within the Commonwealth, under security, in Consolidated By-laws, page 78, in By-law No. 71, and in "Guide," page 213, is to be cancelled. (By-law No. 562.)

Refrigerators—
27/833 T.D. 24/84, having reference to Automatic Refrigerators of the "Lipman" and similar types, is to be cancelled. — .. — ..

Wire—
27/836 Copper, of gauges finer than No. 30 gauge (I.S.W.G.), for use in the manufacture of Woven Wire, under security. (By-law No. 560.) — 404 — 16/7/27

Indicators—
27/843 CO_2, including Aspirators and Filters for use therewith. (By-law No. 583.) — 415a (2) — 25/3/27
Note.—The reference to Indicators, CO_2, in Consolidated By-laws, page 29, and in By-law No. 25, and T.D. '24/143, are to be cancelled. (By-law No. 578.)

Inflators—
Self-contained, consisting of a small air compressor, motor, and rubber hose. (See "Machinery, Machines, etc.") T.D. '27/853.

Machinery, Machines, etc.—
27/851 Exploding Machines, Electric, Hand-operated, for use in connection with the exploding of blasting charges. (By-law No. 572, Electrical). — 174 — 13/7/27
Note.—The reference to Exploder, Dynamo, etc., in "Guide," page 202, is to be cancelled.

Machinery, Machines, etc.—
27/852 Flaring Roll Machine, etc. — .. — ..
The reference thereto in "Guide," page 203, is to be cancelled in view of the decision on Splaying and Bending Machines in T.D. '24/716.

Machinery, Machines, etc.—
Indicators, CO_2. See "Indicators," T.D. '27/843.

Machinery, Machines, etc.—
27/853 Inflators, self-contained, consisting of a small air compressor, motor, and rubber hose, for inflating pneumatic tyres— — — 16/2/27
When the motor is an integral part of the inflator—
Air Compressor and Motor .. .. — 352 (a)
Rubber Hose .. .. — 332 (b)
When the motor is not an integral part of the inflator—
Air Compressor .. .. — 352 (a)
Motor .. .. — 179 (d)
(1) (a)
Rubber Hose .. .. — 332 (b) — ..

Note.—T.D. '25/687 having reference to Pumps, "Utica," etc., and T.D. '27/92, as amended by T.D. '27/241, having reference to Compressor, Air, "Lectraflater," etc., are to be cancelled.

Machinery, Machines, etc.—
Recorders, CO_2. See "Recorders." T.D. '27/859.

Machinery, Machines, etc.—
27/855 Strainers, Oil, of the type in which the oil passes between metal discs and not through them, having a mechanical cleaning device and an outlet pipe of ¾ in. internal diameter or over. (By-law No. 574. Miscellaneous.) — 174 — 30/8/27

Machinery, Machines, etc.—
27/858 Wrapping Machines for wrapping blocks of compressed yeast. (By-law No. 577, Miscellaneous.) — 174 — 4/3/27

Scientific Instruments and Apparatus—
27/860 Testing Apparatus—
Cement, viz.: — 415a (2) — 23/7/26
Crushers
Furnaces, Electric
Gauges, Draft
Pulverizers
Sieves
Tank Outfits
Tubes, Centrifuge
under security. (By-law No. 585.)

Bags, Baskets, Boxes, etc.—
27/864 Cases, containing Military Hair Brushes and Comb. — 376(a) — 17/10/27

Sweepers—
27/885 Cleaners, Vacuum, for use in the Household—Parts of, viz.:—Blower Attachment, to blow dust out of corners, etc. — 380(b) — 17/10/27

Electrical Appliances and Materials—
27/893 Tubes, Rectifying, for use in the manufacture or repair of Battery Eliminators for Wireless Receiving Sets. (By-law No. 616.) — 404 — 4/10/27

Gramaphones, Phonographs, etc.—
27/894 Toy, capable of playing records — 319 (b) — 16/6/27

Machinery, Machines, etc.—
27/898 Bootmaking and Shoemaking, viz.:—
Tacking Machines, Staple (or Sole Attaching Machines) — 174 — 8/11/26
Tacking Machines, Wire Grip (or Sole Attaching Machines)
(By-law No. 607.)

Manganese—
27/908 In coarse powder form, for use in the manufacture of Dry Cells. (By-law No. 618.) — 404 — 17/1/27

Sheets—
27/909 T.D. '27/577 and By-law No. 382, having reference to Sheets, Zinc, perforated, etc., are to be amended to operate on and from 15th April, 1926. (By-law No. 619.) — .. — ..

Iron and Steel—
27/915 Angles, Steel, ½ in. x ½ in. x ⅛ in., for use in the manufacture of Steel Window Frames. (By-law No. 639.) — 401 — 18/12/26

Machinery, Machines, etc.—
27/918 T.D. '27/216, having reference to Blowers, Dust, Portable, etc., is to be cancelled in view of the decision on Portable Electric Hand Tools set out in T.D. '27/881. — .. — ..

Machinery, Machines, etc.—
27/925 Motors, Electric, not exceeding ⅛ h.p., imported with and for use with Electric Typewriters. (By-law No. 631, Electrical.) — 174 — 10/10/27

Machinery, Machines, etc.—
27/931 Thread Drawing Machines. (By-law No. 637, Textile-working). — 174 — 14/5/27

Pipes and Tubes (Metal)—
27/932 The reference to Lapwelded Tubes, over 3 inches internal diameter, for use in the manufacture of Fire Sprinkler Systems, under security, in By-law No. 17, in Consolidated By-laws, page 92, and in "Guide," page 294, is to be cancelled, but any such Tubes as were in direct transit to Australia on 31st October, 1927, may be admitted, under security, under Tariff Item 404. (By-law No. 644.) — .. — 31/10/27

Wire—
27/934 Steel, Tinned Binding, .045 inch diameter, for use in the manufacture or repair of Armatures, under security. (By-law No. 643.) — 404 — 3/5/27

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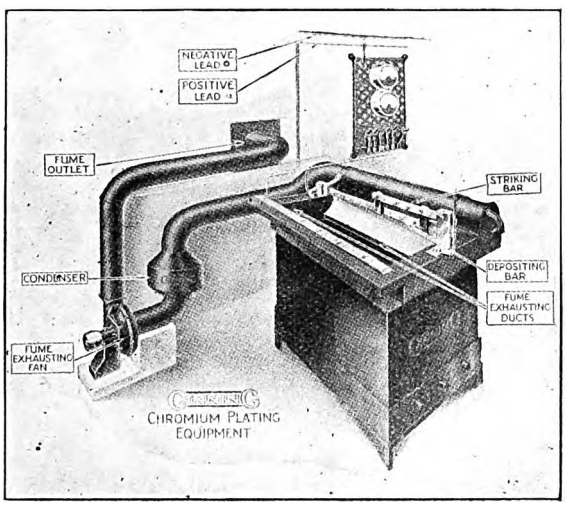
Chromium Plating

(Contributed by 8/211.)

In view of the greatly increased output of chromium plated articles, a few notes on this interesting metal deposit will no doubt be welcome.

Electro deposited chromium is a metal of great beauty, of a slightly bluish tint and extreme hardness.

Although research has been carried on for years to obtain a durable deposit, only within the last four years has commercial success been achieved, during which time progress has been made both in the process of plating and in the technique of finishing. Conductivity of solutions has been greatly improved and it is now possible to obtain a lustrous deposit which requires little finishing in the workshop.



The best result with chromium is obtained on brass, and to-day, in addition to water-taps and other lavatory and bath fittings, electric, gas, motor, ship and hotel fittings are being treated.

Since chromium is untarnishable and retains a permanent lustre, it appeals strongly to the housewife, as a finish for domestic utensils and fittings. Soap and water only are required to keep it clean and bright.

A deposit on iron or steel does not obviate rusting; indeed these metals will rust far more rapidly when chromium plated than when nickel plated. Such articles as surgical instruments, however, that are always kept in good condition may be conveniently coated with chromium.

It is possible to prevent the rusting of iron and steel by coppering heavily prior to chromium-plating.

Although chromium itself is so hard, an article after plating is no harder than before since the deposit is so thin. Thus, if the base metal is soft, the finished article is soft, and may be scratched as readily as the original metal. On the other hand, chromium on hardened steel cannot be touched with a file.

The process of chromium plating is carried on in very much the same way as all other plating.

Manufacturers of chromium plating equipment have succeeded in eliminating many of the drawbacks supposed to be inevitable. Nowadays the process can be carried on under intelligent supervision, but it should not be rashly undertaken since it is essential that a high quality should be obtained if the confidence of the public is to be won.

Chromium plating is more expensive than nickel plating; not only is the cost of the metal higher but the plant and labour charges are more expensive. It is usually estimated that the cost of chromium plating is five times that of nickel. The longer life of the plated article, the elimination of incessant cleaning, and the permanent brilliancy of the deposit, more than compensate for the increased cost.

It must be understood that the conductivity and throwing power of the solution are low, so that not every brass article is suitable for plating with chromium.

Chromium equipments are now running mostly in conjunction with existing plating departments, in all parts of Great Britain, and a steady development of the application of this metal seems probable. The addition of a chromium bath to an existing electro-plating equipment is not a difficult matter.

The accompanying illustration, published through the courtesy of W. Canning & Co. Ltd., shows in detail the chromium bath, embodying all the latest principles for working.

The New Ford Car.

According to cabled reports, the Ford Motor Co. have started on the production of their new model car. Since the manufacture of the earlier model was suspended the capacity of the plant has been greatly increased. Over 65,000 men are employed, and these are earning more money than the 190,000 employed at the peak production of the abandoned model. Before production was commenced orders covering some 125,000 new cars had been received by the company at Detroit.

New Master Cutler.

On October 4 was installed at Sheffield the new Master of the Cutlers' Company of Hallamshire. He is Mr. Percy Wilton Lee, for twenty years managing director of Arthur Lee & Sons Ltd., of Attercliffe and Sheffield, who are manufacturers of steel wire rods, wire, hot and cold rolled strips, and light-drawn bars. Succeeding Mr. David Flather, the new Master Cutler is the three hundred and fourth in the succession. The new senior warden is Mr. Thomas Gilbert Sorby (Thomas Sorby & Sons Ltd.), and the new junior warden. Mr. Arthur Kingford Wilson (Spear & Jackson Ltd.).

New Method of Extracting Metal.

As the outcome of experiments conducted at the South-west Experimental Station of the Bureau of Tacson, in Arizona, an improved method of obtaining metals from low-grade ores has been discovered in America. It is an agglomerating process. The slime and fine particles can be agglomerated, the slimes adhering to the larger particles or cohering together. If this agglomerating principle proves practicable much of the copper now left in heaps of tailings at different places will be recoverable. These refuse heaps contain from .2 to nearly 1 per cent. of copper, and the total thus tied up must be very great.

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Australasian Metal Markets

All prices are quoted for approved brands, duty and over charges included.
For English prices, see The Month's Cablegrams on page 358

Sydney, November 2, 1927.

There are obvious signs of a brighter outlook in trade since the political elections, and added to this is the welcome rain which fell opportunely early this month, when many parched areas were given a new lease of life. Country storekeepers have experienced a very anxious time, but for the remainder of the year it is thought a better time is in store for them. In some directions trade has still considerable leeway to accomplish. Heavy metals have shown that stocks are sufficient to cope with likely trade, and although there were several opportunities to take parcels off the market, the results showed no disposition to overload stocks held in store. Galvanised corrugated sheets, 26 gauge, were sold at list rates, and imported sheets were distributed in parcels. Plain sheets, 26 gauge, were in demand, not much offering. Block tin in both large and small ingots had attention, and higher prices were paid than was thought would be reached. Very small lots were offered. Tinplates were in demand from the manufacturers, and indent parcels were booked for extended periods. Turpentine and resin have been quiet, and indent quotations are fairly steady. Stocks, however, are good. Oils are well held, and although indent quotations are somewhat lower than for some time past, trade reports very little booking. Jute fabrics were quiet, with no particular features in trade circles. In some directions regular turnover was done, but generally it has been a poor month. Shelf lines are in full supply, and orders have been very well spread. All business written has been for demand, and merchants are carefully watching the financial position of the various areas with a view to being assured of keeping stocks down to reasonable limits. Suburban storekeepers have had a quiet month. Money is not being spent freely, and purchases are in smaller quantities than usual.

Auckland, October 17, 1927.

Since our last report a more favourable and optimistic feeling prevails in the hardware trade both in town and country. City merchants report an improvement in general inquiries and demand from the country, where the favourable conditions and the distribution of bonuses on last season's dairy output must have a beneficial effect. So far this has not shown an appreciable result, but the favourable season should soon make itself felt. There is a fair amount of activity in the building of business premises in the city, but so far there is little change in residential building. Prices do not show much change. Corrugated iron remains the same although it is expected that some reduction will be made as the new shipments come forward and not bearing duty. There has been a fair demand for bar iron and structural steel, and prices remain unchanged. Galvanised fencing wires have sold well, English brands receiving most attention. Pig lead is lower at £30/10/- per ton in sympathy with latest advices. Ingot tin is also lower at 3/- per lb. Shipments of cornsacks and woolpacks are now to hand and the demand is good at prices listed. Galvanised pipes and fittings are receiving good attention and stocks held are readily meeting the demand.

Christchurch, October 18, 1927.

With fatter butter-fat cheques coming to dairy farmers, the business outlook has been considerably improved. Trade is on the mend slowly, and even the large amount of unemployment has not altogether prevented a feeling of optimism. The Citizens Unemployment Committee has spent £14,133 on relief work, £2,000 of which was a subsidy from the Christchurch City Council, and £5,299 from the Government. The Labour Bureau's weekly report shows at date a total of 381 unemployed, being a reduction of 14 on last week's figures. The Railway Department is still carrying out tests at the new marshalling yards at Middleton. It has been found that the processes of shunting and making-up of trains can be cut down to a minimum by employing the "hump" system. During the month considerable interest has been taken in the Government revision of the Customs tariff, several changes of importance having been made to the proposals introduced on September 13. The rates on motor cars and motor bodies, against which body-builders protested most vigorously, has been abandoned and the duties in the old tariff are to remain. Important clauses provide for the application of the British preferential and general tariff, there is also

NEW ZEALAND PRICES.

	Duty.	Auckland. Oct. 17	C'church Oct. 18	Dunedin, Oct. 18	Wellington Oct. 26
IRON—					
Bar—		£	£	£	£
English ..	Free	21	22/	22/	24
Shoeing ...	,,	23	23/	20/	25
Steel ...	,,	15/10 to 21/-	20	22/	17/6 to 24/
Pig	,,	8	10/6	10/6	9/- to 10/-
Plate ...	,,	21 10/	24/	25/	24/6
Hoop ...	,,	24/, 35/	25/6, 37/6	32/	33
Sheet, Blk.	,,				
to 20-g. ...		23 10/, 24 10/	25/6	26/	24/6 to 26/6
22 & 24 g.		25 10/	28/6	28/	26/6
Galv. Cor.—	2/-				
First ...		29	31/ Builders	31/	30
Second ...	,,	28	29/- ,,	28/6	29
Local ...	—	29	...	...	...
Do., Plain	Free	...	...	...	...
24 & 26 g.		31/, 32/	31/, 33/	35, 37, 39	29
Pipe—Galv.	Free	45%	42½% off	42½	40% off
,, Black	,,	50%	47½% off	50% off	50% off
Wire—	,,				
Galvd. ...	,,	15/£, 18/-	18/	16/6	17/6 to 18/6
Black ...		16/-	17/	15/6	
Barbed ...	,,	21, 23 10/	24/-	21/	22/ to 23/
Nails ...	2/4/-c	20/6	22/6	2110/ to 23	22
,, N Z.		20/6	...		22
Lead—Pig	Free	30/6	37/6	48/	35
,, Sheet	,,	38 10,	45/	48/	42½
,, Shot	10/.	75/	75/	80/	75/
Tin—Ingot	Free	3/-	3/3	3/2	3/5
,, Plates	,,	32/6, 48/6	40/	40/	37/6
Zinc—Sheet	,,	7½d. lb.	9d. lb.	8½d.	8½d
Quicksilver	—	...	6/6 lb	...	...
Cement—					
Imported	1/-cwt.	...	22/6 cask	...	...
Local bag	—	5/8	7/-	6/	5/11
Slates ,,	Free	...	...	...	...
P. of Paris...	,,	26/-	30/-	28/-	27/6
White Lead	10%a.v.				
Best ...	—	57/	60/	60 -	65/ to 66/
Second ...	—	56/	...	...	64
Blst. Powder	Free	1/8	1/9	1/7	1/8
Rope— ...	20%				
Manila, Star	—	111/	111/	111/	111/
,, O. ...	—	107/	107/	107/	107/
Flax, N.Z. ...	—	81/, 88/	88/	88/	88/
Cornsacks ...	Free				
44-in. ...	—	...	...	12/11	13/6
46-in. ...	—	...	14/9	12/3	13/9
48-in. ...	—	14/3	15/	12/10	14/
Woolpacks ...					
Full ...	Free	5/3	5/3	4/4	5/3
Oils—					
Lins'd, raw	6d.	5/3	N.Z.5/- Eng 5/3	5/6	5/3
Castor ...	Free	5/-	5/6	5/9	5/6
Colza ...	,,	7/9	8/	8/-	7/9
Kerosene ...	,,	13/9	14/9	13/9	13/3
Turpentine	,,	6/6	7/-	6/-	6/6

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a clause providing for a survey of the treaty with the Commonwealth of Australia, and so also in regard to South Africa. The Department of Economics of Canterbury College prepared a bulletin entitled "The Expansion of Overhead Costs," and this was presented to last night's meeting of the Canterbury Chamber of Commerce. It stated that while not the sole cause of the economic difficulties under which the Dominion is labouring, the enormous increases in overhead costs, many of which have been caused by war charges, are an important factor in creating and maintaining those difficulties. The volume of production per head which fell heavily after the war has not since reached its 1910-11 level, and from a national income, which in volume per head has not increased, must be subtracted overhead charges for rates and taxation which have increased from 12½ to 20 per cent., and debt charges which, on account of increased borrowing, heavier capitalisation and higher interest rates, have expanded greatly. The worker's standard of living, for the most part protected by the State and official figures, shows an average rise in wages of 60 per cent. above the 1914 level. Recently several good rains have fallen in Canterbury—badly needed as September was exceptionally dry. The present indications point to good prospects for a fruitful spring and later a bountiful harvest.

Wellington, October 26, 1927.

Business is steadily improving here. The balance of trade is nearly restored to the right side, imports for the year ended 30th September last being only £147,591 in excess of exports, as compared with an excess of imports of £3,186,893 for the preceding year. The bank returns show the effect of this improvement, as the excess of advances over deposits was reduced in the last quarter by £661,259, whereas the movement is usually in the other direction at this time of the year. The outlook for the season for wool, dairy produce and meat is distinctly favourable, and with the flow of money that these products will shortly be bringing in, trade all round should benefit considerably. Already there has been a good measure of improvement, and we feel sure more prosperous times are in store in the near future. Metal goods generally are in good supply, and prices are fairly stable. English prices for metals have tended to ease recently, and consequently any move locally is likely to be in the direction of lower prices. Building is fairly active here, more especially in the larger buildings, but these do not bring much business to the local merchant, the bulk of the materials being indented. There are no changes to report this month in metal goods. Fencing wire had a quiet time, but farmers have been buying a little more lately. Whitelead and linseed oil have eased a little, turpentine and kerosene are somewhat cheaper, but other lines show no alteration.

Brisbane, October 29, 1927.

October has again kept up its reputation as an improving month for trade. The splendid rains over a large area, particularly over the Darling Downs, has materially assisted in this happy condition. The wheat crop which was languishing seriously has been transformed from a fractional yield to a very satisfactory prospect. Farmers generally are jubilant and as a result there has been quite a strong demand for harvesting and other farm machinery. Heavy hardware has improved, and a fair demand has been experienced. Stocks are plentiful. Prices generally unchanged. Bulk lines have improved, but orders are on the light side, with prices unchanged and stocks plentiful. Station supplies, including fencing wires and wire netting, have been moving fairly, with every indication of being maintained. Stocks are well up to demand. Prices remain about the same all round. Builders' ironmongery as also done better, but the increased business is largely confined to the city. Prices are steady. Galvanised iron has been moving freely, but stocks are in ample supply on spot and prices unchanged. Paints and oils have been moving slowly, with tendency to improve as the month closes. White lead has eased a little, but there has been an advance in white zinc and linseed oil. Sanitary material and oils are in full supply and the demand has been steady, but for ordinary plumbing lines the call has been slow. Prices of lead products have eased a little. Kerosene is another item in which prices have eased. Fair business is reported and supplies are well ahead of requirements. Carbide is on the slow side, probably due to the increased daylight, with prices unchanged. Woolpacks have started to ease off, as most of the shearing sheds are now well on with their work. Spot stocks are plentiful. Explosives have been on the light side; in fact, some works have had to put off men owing to supplies not being available. This has now been adjusted. There is no alteration in prices.

Adelaide, October 29, 1927.

Trade continues quiet here although a more optimistic feeling prevails. One or two houses have been compelled to reduce their staff, and in one case arrangements have been made to give employees one week off in every four, thus minimising the effects of wholesale dismissals. Railways troubles have again been to the fore—a strike of the moulders at the workshops at Islington leading to the closing down of the whole of the works involving over 2000 men, but arrangements have now been made for resumption. During the rehabilitation scheme a good avenue of business was open in some lines including machine tools at Islington, but now that completion of this portion of the scheme is in sight the trade will fall away. Interhouse purchase has been more to the fore than for some time. Black and galvanised tube has been frequently called for, and some fair parcels have changed hands at 65 per cent. for black and 55 per cent. for galvanised. Fencing wire has also been inquired for, but netting is rarely mentioned. A parcel of five cases of "Arrow" carbon black changed hands at a satisfactory figure. Two fairly large indents for resin were placed, but little or no activity has been noted for spot stocks. A fair-sized parcel of "W. & O." turpentine was sold at 5/6 ex store. No alterations are to be recorded in market price list. Although still below normal the hardware trade here seems to be recovering.

Melbourne, November 2, 1927.

Business remains persistently dull in Melbourne. The past month showed no improvement over the previous one, although it was confidently expected that the advent of spring, together with the enhanced prospects of the farming community, would at least have stimulated sales of fencing and building materials. Inquiries, however, fail to reveal any transactions of importance. Buying has been of a desultory character. The purchases of wire netting, which may usually be relied upon for a fair turnover in Victoria, were negligible. The same applies to fencing wires. A few parcels of galvanised wire changed hands, No. 10 fetching £17/15/- less discount, while No. 8 brought £16/10/-, an advance on previous quotations. In all cases the dealings traced were for a ton or two only. Barbed wire, American brands, found a taker here and there, mostly for 12½ gauge, at £29/10/-. Iron pipes were steady, examples of the business done being 20,000 feet lots of galvanised, assorted ⅛ to 2 in., at 55 per cent. off, and black pipes from ⅜ to 1½ in., also assorted, at 60 per cent. off. English G.C. iron, in 10 ton lots, was accepted occasionally at £25 net basis, while plain galvanised sheets, 6 ft., 36 by 26 gauge, went

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at £29. Mild steel was handled in a few instances, one purchase noted being 10 tons of assorted sheets at £15/10/- basis, while another lot of 5 tons $\frac{5}{16}$ in. bars, went at £18/10/-. Several lines of black sheets, 36 by 26 gauge, sold at £26; the total sales noticed were only some 5 tons. An assortment of bright steel shafting, approximately 4 tons, changed hands at £25 basis. Cement and plaster met with but poor demand. Private building is slack, most of the materials sold being for large works. Cement appears to be somewhat over produced considering the state of the market. A small quantity is still arriving from overseas. An indication of the ruling price may be given by quoting purchases seen during the month, several 100 cask lots of K.B. & S. being accepted at 20/-. No sales of plaster worth recording occurred; but King's Windsor could be bought for 35/-. Ingot tin fetched from £265/10/- in the first week of October to £270 during the last days of the period. Paints and oils remained practically unchanged, although Champion's white lead was lower at £62 basis. Linseed oil of British make showed no change, but Australian brands were being sold at a low figure. Contracts for future delivery are said to have been signed at prices which indicate a depressed market. Authorities declare that oversea oils will probably register a similar decline. Amongst the stores it is reported that the inquiry for certain hardware goods at this time of the year is fairly dependable, and domestic lines are beginning to move. Here again, however, there is not that buoyancy which usually accompanies the Christmas buying. Aluminium ware sells steadily, both imported and Australian makes. Quite a good sale is claimed for one or two local productions, a Sydney manufacturer especially finding business excellent. In this case the quality and finish are most creditable, while the prices are competitive.

The Month's Cablegrams

Copper, Tin, and Silver.—The following table shows the quotations at the undermentioned dates, compared with those of the corresponding periods last year:—

Date.	Copper. Electrolytic. Per Ton. 1926	1927.	Tin. Standard. Per Ton. 1926.	1927.	Silver. Standard. Per Ounce. 1926.	1927
	£	£	£ s. d.	£ s. d.	d.	d.
Sept. 30..	66¼–66½	61–61½	313 15 0	266 7 6	27	25⅝
Oct. 4..	66½–66⅝	61⅜–62¼	317 15 0	269 7 6	26 11/16	25 11/16
„ 10..	65⅝–66¼	62–62¼	315 5 0	266 7 6	24	25 11/16
„ 17..	66¼–67	62¼–62⅜	315 5 0	262 8 9	24 1/16	25⅞
„ 24..	66¼–67	62⅜–62⅝	310 5 0	267 7 6	24⅛	25⅞
„ 31..	66¼–67	62⅝–62⅞	295 15 0	261 12 6	24 1/16	26 1/16
Nov. 3..	66⅜–67½	63–63⅛	300 2 6	259 12 6	24 1/16	26⅛

The stocks of tin in the United Kingdom at the end of September were 15,024 tons, the deliveries for the month 2487 tons, the quantity on spot 409 tons, and the quantity afloat 2080 tons.

Lead.—In the London market soft foreign lead on spot has been quoted as follows:—October 4, £20 5/-; October 10, £20/2/6; October 17, £21/1/3; October 24, £20/2/6; October 31, £20/16/3; November 3, £20/8/9.

For the month of September the imports of lead into the United Kingdom were 26,007 tons, including 9970 tons from Australia. The exports were 1919 tons.

Spelter. — The spot quotation for spelter, as cabled from London, have run as follows:—October 4, £26/12/6; October 10, £26/16/3; October 17, £27/5/-; October 24, £26/17/6; October 31, £26/12/6; November 3, £26/6/3.

Tallow.—Following are the statistics for October and particulars of the latest auction sales:—

October	Casks.	Date.	Casks Offered	Casks Sold.	Mutton, Med., per cwt.	Beef Med. per. cwt.
Imports	1582	Oct. 5	804	649	33/6	33/-
Deliveries	3585	„ 12	1251	942	35/-	35/
Stock	3537	„ 19	846	835	35/-	35/
		„ 26	1000	503	35/6	35/6
		Nov. 2	744	744	36/-	36/3

Petroleum Refining: British Development.

A trade bulletin recently issued by the Minerals Section of the Department of Commerce, U.S.A., says that 70 per cent. of the world's petroleum production is within the territorial limits of the United States.

Incidentally the bulletin suggests the great development in the refining of petroleum which has taken place in Great Britain within recent years. Whereas in 1913 only 31,700 barrels of crude petroleum were imported into the country, the imports in 1925 were something like 16,000,000 barrels, and the 1926 figures were equally high. "The principal growth has taken place during the past six years, the first large increase having been in 1921, when nearly 3,000,000 barrels of crude were imported. Since that time there has been a steady and rapid increase, the 1925 figure being more than five times that of 1921." In the consumption of petroleum products the United Kingdom is only second to the United States. For this British industry, long-distance transportation of crude oil has been necessary. "The bulk of the raw material has come from foreign countries, although chiefly from production under control of British companies."

New Alloys.

A process covering a whole series of new alloys is said to have been discovered by Mr. T. D. Kelly, an electro-metallurgist and technical chemist, of London. Mr. Kelly's discoveries, according to reports from Britain, embrace three fields, one concerning the platinum group, the second rustless iron, and the third a copper-iron alloy. The first of these, to which the name solium has been given, is a new metal intended to take the place of platinum. It is claimed that solium can be made harder than steel or as soft as lead, that there is no degree of malleability to which it may not be reduced, and that there is no purpose for which platinum is used for which solium will not serve equally well. It is also said to be cheaper than platinum and is only half the weight.

It was the creation of solium that led Mr. Kelly to the discovery of another metal, a rustless iron. This is a ferro-chrome with or without nickel, but with large amounts of copper, and is said to be malleable when cast without treatment, and can be worked cold like ordinary iron. Another alloy is a plain copper and iron mixture, substituting iron for zinc. The claim for it is that it is extremely malleable and can be rolled cold as soon as cast and resists all cold acids and alkalies, even ammonia. It does not resist nitric acid, but the rustless iron does. The dividing line is practically a colour one. A large amount of copper gives a salmon pink colour, and a large amount of iron a silver colour.

In an interview, Mr. Kelly said there was now available for the ordinary man or woman, apart from the engineer, chemist and scientist, metals only equalled by platinum, and certainly superior to gold or silver at less price than any of the known bronzes or brasses, as they can be sold at anything from 6d. to 1/- a lb., with a good margin of profit.

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Australian Market Prices

N.B.—The prices given in these columns are mostly those at which wholesale merchants are prepared to supply ordinary parcels to storekeepers, or other retail dealers. In a few cases we give the quotations of manufacturers or their agents. Preference as well as general duties are shown in the "Duty" column. The first rate is that on goods from the United Kingdom, and the second is the general rate on goods from foreign countries. "F" represents free, and "F 10%" free from the United Kingdom and 10% from other countries.

	Duty	Sydney Nov. 2	Melbourne Nov 2	Adelaide Oct. 29	Brisbane Oct. 29
Pig Iron	20/. 40/	£	£	£	£
British		...	7 5/	7 10/	...
Swedish		...	...	...	...
Lithgow		7 10/	7 5/	...	...
Newcastle		7 10/	7 5/	7 10/	...
Bar and Rod	44/. 120/	23 basis	English 21	21	22/10 basis
Australian		...	18/6	17 10/	...
Mild Steel	44/. 120/				
Bar		19 10/basis	19/ basis	18 10	18
Angles		19 10/	18	19	19
Tees		21	18	20 10	20
Hoops	F., 10%				
Black		20 basis	19 basis	19/6	21/ basis
Galv.		31/6 basis	35	33/6	31 10/
Galv. Corr. 24g.	20/. 60/	30/]	29 10/	28 15/	
Orb 26 g		27	30	30 15/	27 5/
,,		28 10/	30		28 15/
Adams Mars		...	...	...	...
Phoenix Cr.		29 15/	30	28 15/	28 15/
Galv. Plain 24g.	20/. 60/	30/]			
Queen's Hd.		29/	31	31 15/	29
Phoenix Cr.		31 5/	33	...	...
Fleur-de-lis		28 10/	...	31 5/	28 15/
Other		...	30	...	40
Sheet	F., 125/				
Black		26 basis	25 basis	26	26
Baldwins		B26, G34 5/	26 10/	...	19
Plate	F., 120/	basis			
Steel		18 basis	15 basis	15	15 10/
Girder		19/6	21	19	20/-
Fencing Wire	F., 120/				
American 8		18 5/	18 5/	..	..
,, 10		19 5/	19 5/	..	...
Austra'n 8 Bl.		15 12/6	15	15 10/	15/10
,, 10 ,,		16 12/6	15 10/	16	16/10
Galv. 8		17 17/6	16 10/	17 10/	18
,, 10		18 17/6	17 15/	18	19
,, 12		20 2/6	18 10/	20	20
Barbed Wire,	68/. 180/				
Amern. 12-g.		24	...	...	25 10/
,, 14-g.		25 10/	...	...	26 10/
Austn. 12-g.		24 10/	22 10/	24	25 10/
,, 13-g.			23 10/	25	26 10/
,, 14-g.		26	24 10/	26 10/	26 10/
Wire Netting	F., 200/				
36 x 1½ x 17	per. ton		36 15/	28	
36 x 1½ x 18			29	50	New
42 x 1½ x 17			49 10/	..	List
42 x 1½ x 17		22½% to	41 10/	42	
42 x 1½ x 18		25%	34	33 10	
36 x 1½ x 17		off	35	...	10 to 15%
36 x 1½ x 18		list	28		Off List
36 x 2 x 18			22 10/	23	20%
36 x 2 x 19			20	20 15/	Off List
Nails—					
Horshoe	12/. 15/	List	to 1/lb.	1/ less 10%	List Price
,, Austn.		...	List	...	plus 5%
Wire	5/6. 8/				
,, Austn.	or25%,35%	28/6 basis	18/ to 20/	24/6 to 35/	30/- basis
Roofing—	5/6. 8/				
Evenden		74/6 cwt.	65/cwt., 9/6	9/-	11/
Lead-head		...	...	...	44/
Block Tin	Free	265/10/-	280	288	3/
Tin Plates,					
28 x 20—	F., 10%				
I.C. Coke	28 x 20	112's 60/-	50/	112's 52/6	27/
I.X. Coke	56s	35/-	70/	...	42/
Pig Lead	Free				
Austn.		25/6	26	32/	37/10
Sheet Lead	10%, 20%	40/	50	43/6	49/
Dampcourse					
2 lb.		4½" 6/6	48		
3 lb.		4½" 10/-	47		
Lead Pipe—	10%, 20%				
¼ to 2in. coils		45/	47 10/	49 10/	59/
Lengths to 5'		47/	52	52	60/
Compo. ¾" & up		51/	51	51 15/	72/
Copper—					
Ingots		...	70	78/	10d.
Sheet	25%, 40%	1/5½	1/7	1/8	1/8
Brass					
Sheet	25%, 40%	1/3	1/2 to 1/6	1/6	1/6

	Duty	Sydney Nov. 2	Melbourne Nov. 2	Adelaide Oct. 29	Brisbane Oct. 29
Zinc—		£	£	£	£
Sheet 9 to 18g (7 x 3 & 8 x 3)	25,% 40%	60/	62 10/ to 65	67/	65/ cwt.
Perforated	35%, 45%	4/9	7	...	5/6
Spelter	10%, 20%	32	...	54/	...
,, Elec....		301.10/to 37	41 to 42	...	40/
,, Brazing	25%, 40%	1/9	1/5	...	1/9
Bolts & Nuts—		¾" 1"	¾ ½ ⅝		
Cuphead 3"		75/, 59/	63/ 47/ 41/		
,, 4"	35%, 50%	76/, 57/	61/ 46/ 39/	...	26/3 to 73/
,, 5"		70/, 54/	56/ 43/ 37/		
,, 6"		65/, 49/	52/ 39/ 35/		
,, 6½" to 9"		61/, 47/	49/ 38/ 34/		
,, 9½" to 12"		59/, 45/	47/ 36/ 32/		
Tanks, 400-gal.	Free	7	4 15/		5
,, 200-gal.		3 10/	2 5/		3
Tubing—	F., 10%				
Black, up to 3"		55 off list	55% off	58⅓off	List 45% off
" 3½ & up	27½		60% off	35 off	.. 5% on
Galv. up to 3"	50 ,,		45% off	46⅔off	.. 35% off
" 3½ & up	27½	...	tst. List	20 off	Less 5% off
Steam, up to 3"	40 ,,		37½% off	37½off	.. 5% on
" 3½ & up	27½	...	5% off	20 off	.. 26% off
Wr'ght boil.		...	10% on	...	.. 15% on
Explosives—	F., 5%				5/
Hall's C.C.	10%	1/-	10½d.	1/-	1/1
Curtis's ...		10½d	10½d.	11½	1/
Chilworth's		10½d.	10½d.	...	1/1
Sporting ...	15%, 25%	3/6, 4/6	2/9 to 4/6	3/6 to 4/11	3/6 to 5/
Diam. S'less		10/	8/ to 8/6	8/3 to 8/6	5/
Amberite ...		8/6	7/ to 7/6	6/9 to 7/6	75/
Blast'g Gel.	F. 5%	72/6	74/6	74/6	78/6
Gel. Dyna.	...	65/	66/	66/	71/-
Gelignite ...	...	56/ to 59/3	56/ to 59/3	54/6 to 58/6	62/ to 65/
Dynamite ...	...	51/ to 57	51/ to 57/	46/6 to 51/6	...
Detonators ...	15%, 25%	55/	55 to 60/	60/ to 85/	58/ to 102/
Shot—Chilled ...	5/. 6/	63/6	61	75/	90/
Australian ...		61/	56	...	...
Cyanide Pot.	Free	1/4	1/6	...	1/6
Quicksilver ...	Free	7/6	5/	5/8	10/-
Sash Weights	35%, 45%	15/	22/6	16/6	18/6
Sheep Shears	F., 10%	62/6	62/6	60/	60
Cement—Impt'd	20%, 30%	25/ cask	21/	22/6	21/ cask
Aust. (bags)			17/6	7/4	6/6 bag
Plaster, Imp.	1/6, 2/c	37/6 K.W.	35/	47/6	50/ cask
,, Aust.		Pixie 35/-	8/	9/3	18/ bag
Slates (20 x 10)	30%, 40%				
White Lead—	8/, 10/, or				
Imported ...	25%, 30%	63/	62	71/6	67/
Australian ...		57/	60/	62/	62/
Zinc White ...	20%, 30%	...	70 to 100	...	72/. to 80/
Oils—					Colonial 56/
Linseed (raw)	9d., 1/		Drs.,		
Imported ...		R5/6	5/6	Drs., 5/9	5/3
Australian		C4/11 D5/11	C., 4/11	Drs., 5/6	4/10
Colza ...	6d., 8d.				
Burning ...		...	6/-	...	
Castor—	9d., 1/				
½-cases		C 6/3	6/3	7/	7/9
China ...	2s., 2/6	...	8/	...	...
Cotton seed	6d., 8d.	..	8/6 to 10/	...	10/
Kero.—C.O.R.	Free	..	13/	...	...
Laurel ...		13/	13/6 to 14/6	13/	12/6
Light of Age		13/	13/6 to 14/6	13/6	12/6
Pennant ...		13/	13/6 to 14/6	13/	12/6
Turpentine	F.,	5/6	5/9	6/-	6/-
Substitutes	½d., 1d.	3/	18/ per case	...	2/6
Shellac ...		3/3	2/9	2/8	2/6
Whiting—	6d., 9d.				
English ...		9/	9/-	9 10/	£12 ton lots
Colonial ...		4/9	5/-	5/	...
Resin, G grade	Free	38/6	36/-	36/	37/6
Carbide—	80/, 150/				
"I X L" ...		32/6	27/6	29 5/	29, 7/6
Scandinavian		34/-	30/-	33 10/	33
Canadian ...			...	...	...
Japanese ...		...	...	...	...
Bluestone—	100/, 200/				
Macclesfield		37/6	37/6	...	40/
Australian ...		36(1 cwt c/s)	...	37/6	...
Japanese ...		...	...		
Stock. Tar, 42 g.	25%, 35%		1/5	...	
Woolpacks—	Free	...		...	...
42 x 11½ ...		...	6/	5/9	...
54 x 11½ ...		4/4½	4/6	4/9	4/9
Cornsacks—	Free				
2¾ lbs. (Oats)		...		...	...
2¼ lbs ...		9/10½	12/6	11/6	11/3
Branbags ...	Free	12/10½	10/6	8/6	10/7

Small buyers requiring credit for broken parcels must expect to pay more than prices here quoted.

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Business Register

If you correct them monthly by these pages you will have lists more up-to-date than any Directory. Some leading firms do this.

New South Wales

Firms Registered.

Casino Cash and Carry Store, grocers and ironmongers, Walker-street, Casino; proprietors: Heathwoods Ltd.

Reuben Wood & Geddes, commercial brokers and commission agents, 76 Pitt-street, Sydney; proprietor: Oswald D. Geddes.

Coles' Stores, also Coles' 3d., 6d. and 1/- Stores and Coles' Stores, Nothing over 2/6, fancy goods and retail merchants, 150-154 Pitt-street, Sydney; proprietors: G. J. Coles & Co. Pty. Ltd.

Jones & Joseph Ltd. have removed from Bernard Buildings, George-street, Sydney, to larger premises at 235-39 Clarence-street, where they will have every facility for displaying a full range of samples from the manufacturers they represent.

Company News.

C. Hansby Read Ltd. have been registered with a capital of £2000 in £1 shares. Objects: To carry on the business of manufacturers' representatives, agents, importers, etc. Subscribers: C. Hansby Read, S. Hayne, A. W. Clark, S. Johnson, Victor C. Read, Carl F. S. Glasgow, and R. G. Sherlock. Reg. office: Sydney.

Kendall, Knight & Co. Ltd. have been registered with a capital of £10,000 in £1 shares. Objects: To manufacture, construct and deal in air compressors, rock drills, motor engines, etc. Subscribers: Hubert R. Hungerford, Alfred W. Kendall, Eileen Kendall, Oscar L. Knight, Elizabeth E. Knight, Thomas N. Casey, and Ronald M. Duncan. Reg. office: 59 York-street, Sydney.

New Zealand

Company News.

Blair's Ltd have been registered with a capital of £5000 in £1 shares. Objects: To carry on the business of wholesale and retail ironmongers and hardware merchants and general. Subscribers: A. Blair and E. Blair. Office: High-street, Hawera.

Nicholls Bros. Ltd. have been registered with a capital of £3300 in £1 shares. Objects: Range makers, founders, engineers and general incidental. Subscribers: B. S. Nicholls, J. H. Nicholls, G. E. Luckman, F. C. White, D. J. Nicholls, F. Nicholls, O. M. Nicholls, and J. Stanton.

I. Hart Ltd. have been registered with a capital of £7300 in £1 shares. Objects: To carry on the business of fancy goods factors or salesmen, jewellers, ironmongers, china retailers, and general incidental. Subscribers: I. Hart, Ethel Hart, and N. H. Selig. Office: 31 Willis-street, Wellington.

Queensland

Company News.

Barker & Co. Ltd. have been registered with a capital of £50,000 in £1 shares. Objects: To carry on in all its branches the business of builders' supplies, hardware, machinery, timber and general merchants, etc. Subscribers: John W. Barker, David E. Evans, Alexander Stafford, Arthur J. Deakin, Sydney H. Pack, William S. Hurwood, and Percy W. Hill. Reg. office: 87-89 Eagle-street, Brisbane.

Hipsleys Ltd. have been registered with a capital of £100,000 in £1 shares. Objects: To carry on the business of ironfounders, mechanical engineers and manufacturers of agricultural implements and other machinery, etc. Subscribers: Lewis J. Davies, William B. Hipsley, Charles A. Holliday, Robert C. Brewster, Linda S. Davies, Jessie G. Hipsley, and Robert Newnham. Reg. office: Ann-street, Valley, Brisbane.

James Hardie & Co. Ltd. (formerly called The Asbistos Slate & Sheet Manufacturing Co. Ltd.) have been registered with a capital of £500,000 in £1 shares. Objects: To carry on the business of the manufacture and fixing of asbestos cement slates and sheets, etc. Subscribers: Andrew Reid, George R. Sutton, S. O'Arrietta, D. C. Cameron, R. H. Kilgour, A. E. Packer, and William Williamson. Reg. office: A.M.P. Buildings, Queen and Edward-streets, Brisbane.

Shepherd's Anvil Stores Ltd. have been registered with a capital of £50,000 in £1 shares. Objects: To acquire the business of ironmongers, general hardware merchants, timber merchants, plumbers, electricians, etc., now carried on by Daniel Shepherd & Sons Ltd., and to carry on the said business or any other business of a similar nature, etc. Subscribers: Charles Davie, Catherine J. Davie, Florence J. Davie, Charles J. Davie, William S. Davie, James A. Davie, and William A. Wright. Reg. office: Mackay.

South Australia

W. E. Ekins & Son, gunmakers, cartridge manufacturers, and importers, 92 Currie-street, Adelaide, have been registered under the Firms Act; proprietor: Archibald Leslie Gray Ekins.

Tasmania

Franklin Trading Co., storekeepers, Franklin, have been registered under the Firms Act; proprietor: Wm. Lew Haley.

Martin & Punch, sports material dealers, Launceston, have been registered under the Firms Act; proprietor: Geoffrey William Martin.

Victoria

Mr. George H. S. Hoos is now to be found at Carson-place, 289a Little Collins-street, Melbourne. Here he has secured premises formerly occupied by P. T. Law & Co., on the opposite side to Mr. J. K. Merritt.

Company News.

Lips (Australia) Ltd. announce that the name of the company has been changed to Wm. Bedford Ltd.

Castles Bros. Pty. Ltd. announce that the capital of the company has been increased from £15,000 to £50,000.

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Johns & Waygood Ltd. announce that the capital of the company has been increased from £150,000 to £300,000.

Philips Lamps (Australasia) Ltd. have removed from 422 Collins-street to 402 Post Office-place, Melbourne.

Hecla Pty. Ltd., manufacturers of concrete articles of all kinds, have been registered with a capital of £10,000 in £1 shares. Subscribers: Rudolph Arthur Schuchard and Hugh Thomas Craig.

Australian Metal Alloys Pty. Ltd., ironmasters and founders, etc., have been registered with a capital of £10,000 in £1 shares. Subscribers: Arthur John Peberdy and Ronald Charles Anderson. Reg. office: 430 Little Collins-street, Melbourne.

Sunshine Employees' Trust Ltd. have been registered with a capital of £500,000 in £1 shares. Subscribers: Samuel McKay, John Francis Hutchinson, Ralph Youl, Godfrey Mercer, and George Shaw. Cecil Newton McKay and David Buchan Ferguson are also directors.

Osborne's (Bentleigh) Pty. Ltd., hardware merchants and manufacturers, etc., have been registered with a capital of £20,000 in £1 shares. Subscribers: George Frederick Osborne and Georgina Maud Osborne. Reg. office: Centre-road and Mitchell-street, Bentleigh.

W. & A. Bennett Pty. Ltd., manufacturing tinsmiths and sheet metal workers, have been registered with a capital of £5000 in £1 shares. Objects: To acquire as a going concern the business of W. & A. Bennett. Subscribers: Thomas Bennett, Alexander Bennett, and William Bennett. Reg. office: 356 King-street, Melbourne.

T. Elliott & Sons Pty. Ltd., sheet metal workers, tinners, etc., have been registered with a capital of £20,000 in £1 shares. Objects: To acquire as a going concern the business of T. Elliott & Sons. Subscribers: Thomas Henry Elliott, Arthur George Elliott, and William Ernest Richard Elliott. Reg. office: 402 Hope-street, Brunswick.

Western Australia

S. Glance has commenced business as a builder and cabinet makers' hardware, oil and colour merchant, at 229 Crawford-road, Maylands.

Hollis & Thomson, tinware manufacturers, plumbers and sheet iron workers, 22 Henry-street, Fremantle; proprietors: Frederick Hollis and Rachel Hollis.

Travellers

In New Zealand.

Mr. Ross Duggan, Cathcart House, Castlereagh-street, Sydney, who is factory representative for several American manufacturers, left Sydney on October 21 on a business visit to New Zealand, where he will spend about a week in each of the principal centres, and where he may be addressed care of the New Zealand Express Co., Auckland.

In Queensland.

Mr. P. D. Edwards is at present in Queensland with samples from the various manufacturers represented by Mr. Ross Duggan, of Sydney.

Mr. C. W. Lutton, of Carr & Elliott, 204 Clarence-street, Sydney, is visiting Brisbane from November 7 to December 9 with a full range of samples which will be shown at the rooms of the Commercial Travellers' Association.

In Western Australia.

Mr. Frank Machon, representing Spear & Jackson Ltd., of Sheffield, set out on a business tour of the south and west, but was overtaken by illness at Perth and had to return to Sydney. Before long, however, he hopes to pay a visit to South Australia and Victoria.

From Europe.

Mr. H. S. Chambers, managing director of the Cyclone Fence & Gate Co. Pty. Ltd., has returned to Melbourne after spending some months in America and Great Britain. He was accompanied by Mrs. Chambers.

Agents and Agencies

An agency for a rubber non-slip horse shoe is offered by the English makers of the article which is very highly recommended. Agents in a position to place substantial orders only are asked to communicate. The Editor of this journal has the name and address of the firm concerned.

Mr. W. J. Matthews, Box 2997 N.N., G.P.O., Sydney, who has been absent in England for the past ten months, returned to Australia early in October. As will appear from the following list, he now represents quite a number of British manufacturers, those marked with an asterisk covering New Zealand also:

Mysto Aluminium Co., Birmingham (aluminium household utensils).

*Ensor Silver Plate Co. Ltd., Birmingham (E.P.N.S. ware, etc.).

*G. B. Birch & Co., Birmingham (fireside companion sets and brassware).

Marris's Ltd., Birmingham (picnic baskets, art brasswares, etc.).

Samuel Groves & Co. Ltd., Birmingham (nickel trays, waiters and pewter goods).

*Armstrong Stamping Works Ltd., Bilston (japanned trays, waiters, tinware).

Vulcan Manufacturing Ltd., Wolverhampton (door bolts, black, galvanised and brass, etc.).

Wearwell Cycle Co., Wolverhampton ("Wolf" brand cycles, etc.).

*Read Engineering Co., Wolverhampton (drilling machines, motor jacks, foot pumps, etc.).

Septimus Vaughan Ltd., West Bromwich (picks, mattocks, spades, digging forks, shovels, etc.).

*Threadgill Electro Deposits Ltd., Tipton (metal-coated goods).

*Ardinco Ltd., London (V knife sharpeners, dust pans, etc.).

*Major & Co., Manchester (cookie spoons and pan brushes).

H. J. Wood Ltd., Burslem (Rockingham and Samian teapots).

*Thos. Cone Ltd., Longton (earthenware).

*Osborne China Co. Ltd., Longton (fine bone china teaware, etc.).

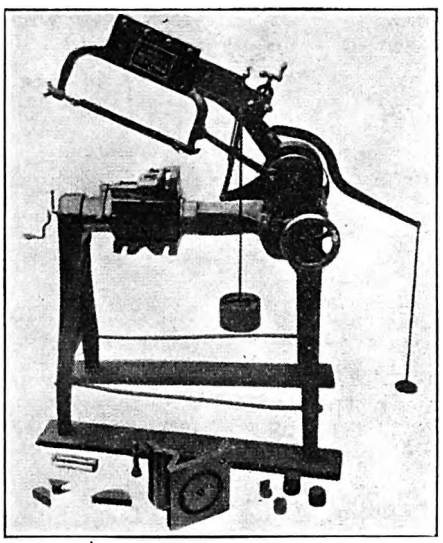
Landing in Perth, Mr. Matthews showed there full ranges of samples and will take Adelaide and Melbourne on his way homeward. He has dropped the agency for the Midland Metal Spinning Co. Ltd., of Wolverhampton, in favour of the Mysto Aluminium Co., forementioned.

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Machinery

Universal Sawing Machine.

R. Price & Sons, of 213 Putney Bridge-road, London, S.W., England, have placed on the market a new sawing machine which, as it can perform a number of operations apart from sawing, is adaptable to mechanical workshops that do not warrant an extensive equipment. This tool is equal to operations that call for a shaping machine, a milling machine, or a slotting machine.



The standard hack saw blade is used for ordinary cutting, but for keyways, slots and shaping work a broad type of saw is used, while for blind keyways and feather slots a single cutter may be employed.

The work-holding device consists mainly of a revolving box table having four sides on which the work is fastened direct or fixtures can be fitted. One face has tee-slots running in a transverse direction with a vee-slot; the second has tee-slots running in line with the saw frame and a vee-slot; the third has a centre bolt hole and circular slot, and the fourth has tapped holes to take special fixtures.

The body is mounted on legs of the usual type, but in place of the usual flat table a round portion carries this special box table. Thus the table has a revolving movement with graduations for definite angular setting, and a plunger for the right-angle positions. The table also has a longitudinal adjustment of 5½ in. As the saw arm is directly balanced by weights, no relief motion is employed. Greater economy in cutting is claimed as the loss of cut due to the rise and fall at the start and finish of the stroke is avoided.

The forward weights exert a direct downward pressure and those at the rear an upward pressure. By arrangement of these weights the cutting pressure of the saw can be determined.

The saw arm and other saw mechanism is supported from the carriage, so that the cross adjustment of the latter enables the saw to operate in different positions across the work.

A self-aligning ball bearing is used for attaching the connecting rod to the driving plate, so that a smooth cutting action is assured under any conditions. By means of a radial slot in the driving plate the length of stroke can be varied. The normal speed is 100 strokes per min., ¾ h.p. being required for driving. Various examples of work performed may be seen at the foot of the machine.

New Wrench Set.

The Bonney Forge & Tool Works, of Allentown, Pa., U.S.A., have added another wrench set to their line.

This set, a socket wrench set, comprises ten chrome-vanadium steel hexagon sockets ranging from $\frac{7}{16}$ to $\frac{3}{8}$ in. inclusive, and three handles, ratchet, sliding T, and 13 in. brace handle, the last of the so-called speeder type. Two extensions, 5 and 10 in. long, and a universal joint are also furnished.

The outfit is packed in a substantial black enamelled carrying case with a leather handle. These wrenches are guaranteed to be stronger than the nut or bolt they fit.

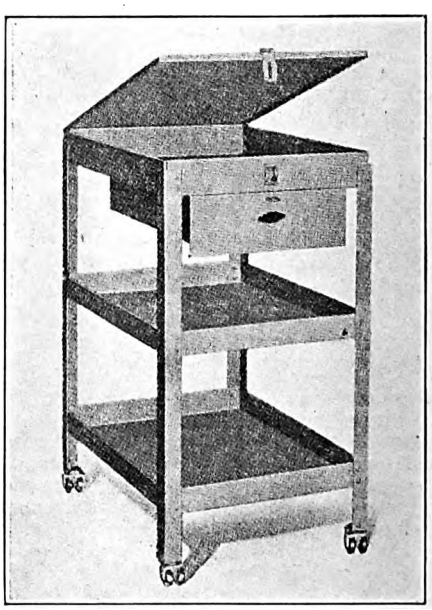
Spring Winder.

An improved spring-winding tool has been placed on the market by the Superior Spring Winding Tool Co., Milwaukee, Wis., U.S.A. It will wind tempered spring steel wire of any size from hair springs up to ¼ in. wire with a miximum diameter of 2 in. The pitch is regulated by an adjustable screw with graduations, and the tension of the wire is regulated by a friction plate and screw. The ends of compression springs can be closed.

The device can be used either in a lathe or vyce, and it will make either right or left hand springs. Malleable castings and hardened steel are used in the construction.

Handy Tool Stand.

The Pollard Bros. Mfg. Co., of 4035 N., Tripp-avenue, Chicago, Ill., U.S.A., have recently added a stand known as the "Tool Tender" to their line of factory equipment.

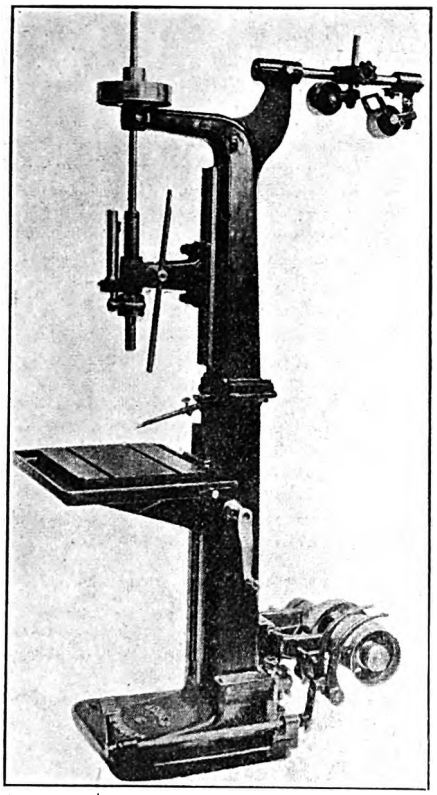


It is similar to the tool stand they have been marketing, but the pan is deeper, and a cover has been fitted. This cover is of heavy sheet steel and is flanged on all sides to add to its strength and rigidity. It is fastened to the pan by means of strap hinges and has a strong hasp to permit of safe locking.

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Sensitive Drill of British Make.

Jones & Shipman Ltd., of Leicester, England, have added a new ball-bearing 16 in. sensitive drill to their range of these tools.



Extra power is claimed for this tool as the driving pulleys are larger, and the belt drive lengthened. The spindle pulley is 7½ in., and the largest cone 8 in. in diameter. Added to this is the six-splined spindle. To this model is also fitted the firm's special cushion spring feed return to the spindle, one object of which is to save drill breakages by providing an extremely sensitive feed.

Special attention has been given to the coolant supply, the arrangement being enclosed in the column and base of the machine. The lubricant is supplied to the drill point by a metallic hose, the pump having a guarded chain drive. A channel around the table conducts the coolant direct to the tank through a slot in the column.

The positive depth stop consists of a screw and two lock nuts, and is adjustable up to the length of the stroke. The table, which measures 20 x 18 in., is raised and lowered by a rachet lever. Its vertical movement covers all requirements in vertical capacity.

The machine drills holes in steel up to 1 in. diameter, and can be built in multiple spindle types up to six spindles.

Mr. Charles E. Young, of 66 Clarence-street, Sydney, is the company's factory representative in Australia.

Improved Flexible Coupling.

W. H. Nicholson & Co., of Wilkes Barre, Pa., U.S.A., announce the inclusion of improved lubrication features in their line of flexible couplings. The improved type is known as style A, and the old type without the oil lip is known as style B.

Holes drilled longitudinally through the floating keys and the hubs act as reservoirs for the oil. A lip is extended from this casing over the left hub of the coupling, and into this lip oil is squirted either while the coupling is standing or in motion.

With the extra space provided by the holes in the lip the coupling is said to carry approximately 150 per cent. more oil than the old type.

Magnetic Switch.

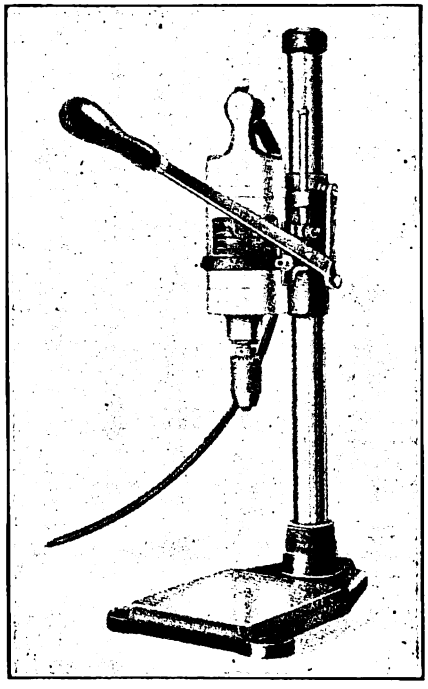
To meet the demand for a small, low-priced magnetic switch with temperature overload relays, the General Electric Co. of Schenectady, N.Y., U.S.A., have designed a device known as C.R.-7,006-0-20.

This switch has a neat appearance, requires a small mounting space, and is said to incorporate many desirable technical features. The case is of the drawn shell type. During installation the base is removed from the case, thus making it easier to fasten the case to its mounting, fit the conduit, and draw in the leads.

Large barriers are used to permit the switch to interrupt high currents. The electrical interlock is designed to permit use on insulated circuits. Overload protection is provided by means of a relay held in position by fuse clips. These relays can easily be changed to suit the size of motor involved. As the relays are self-starting the switch can be used with 3-wire push-button control circuit only.

Electrical Drill Stand.

The Goodell Pratt Co., of Greenfield, Mass., U.S.A., have recently marketed a drill stand designed specially for their No. 1042 ¾ in. heavy duty drill.



The drill slips into its position on the stand and is locked there by a thumbscrew. A spring compensates for the weight of the drill, and the carriage is located inside the vertical column. The lever feed can be set to any depth up to 3⅜ in. The extreme distance between chuck and table is 11¾ in., and it is possible to drill to the centre of a 9 in. circle.

The overall height is 25 in., the bench space required is 8½ x 12 in., and the weight of the stand alone is 18¾ lb.

In this part of the world these manufacturers are represented by Mr. W. A. Greenbaum, of 40 King-street, Sydney.

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Leather and Brushware : Cordage and Jute Goods

Buyers' Notes for Retail Dealers

Sydney

Abrams Brooms & Brushes Ltd., whose city office is in the Imperial Arcade, Sydney, are displaying brushes for almost every conceivable use, from dental brushes to those for scrubbing horses and yards. Hair brooms are made in a number of sizes, some being especially large for use in stores and public halls. A wide range of painter's brushware is carried. A feature is the firm's own patented kitchen mop and brush. The handle of double wire has a loop for hanging, and the other end spreads into the close-set separated-twined wires, one holding the fibre brush and the others the cotton mop, which extends to and covers the end ready for use. Oval stove brushes are made in four sizes. In different sizes are hand and machine filled banister brushes with red handles. A special single wing scrubbing brush is being featured, and there are double and single wing styles, while laundry and flat-faced varieties are also made. Bottle brushes may be had with hair or bristles, and four sizes of cream separator brushes are available. Solid back Dandy brushes are made in seven materials, and there are clothes brushes and nail brushes in several qualities and prices.

Edward Bentley & Sons Ltd., of Fitzroy-street, Marrickville, Sydney, are the manufacturers of the "Elephant" brand of cordage. Made of Italian and Russian hemp and supplied on reels or in balls, twine for counter use is sold in handy lots. Beef twine for butchers is made in three qualities, and comes in 14 and 16 oz. balls, and twine for general purposes is supplied in three grade. Roping and seaming twine is sold in bale lots or smaller if desired, and is made of Italian hemp, Calcutta jute and cotton. Bagging string is sold in hanks, and other makes are teasel hemp for fibrous plaster, chemists' twines, broom twine in colours, hat blocking cord, collar twine, mattress twine, hemp loon cord, cotton for caulking purposes, piping cord of cotton and jute, sewing cord in colours, and sewing twine in natural colours, in hanks. Cotton jute and flax ropes are sold with handles for skipping purposes. Other qualities are made from ⅜ in. upward and oiled or not as required.

Lewis Berger & Sons (Australia) Ltd., whose factory is at Rhodes, Sydney, supply varnish and paint brushes of tripe thick pure bristles with varnished handles in seven sizes from 1 to 4 in., a dozen to the box. Brushes guaranteed pure grey or black bristle are well finished and sold six in a box, the sizes being 3½, 4, and 4½ in. Of a better finish the Russian grey bristle brushes are brass bound, carrying varnished hardwood handles. The "Mercury" weatherboard brushes are supplied in dozen and half-dozen lots, and the "Handy" brush is sold in two sizes, 1 in. and 1½ in. Cards are supplied for display purposes.

Briscoe & Co. Ltd., of 383-85 Kent-street, Sydney, supply travelling goods in various grades and large stocks of leather school bags for boys and girls are on hand. Leggings of varying quality are a feature, and leather straps range from 36 to 70 in. in length.

Candle cotton is supplied in half-dozen ball lots, and from the Belfast Ropework Co. Ltd. comes rope of coir, hemp, sisal, flax and manila, together with four and five ply twines.

Verandah water bags with bottle neck are sold in sizes ranging from 8 in. to 18 in., and hessian and woolpacks are in large supply.

Brushware of Australian make is of good quality, the range covering all domestic and trade reqiirements. "Briton" brand covers a variety of brushes, including a black lead brush with curved back and double wing.

John Danks & Son Pty. Ltd., of 234-40 Pitt-street, Sydney, have available large stocks of the "Bondza" paint brushes, as well as bevelled wall brushes, flat varnish brushes, and "kelso" brushes. Black or grey bristles are to be had at the choice of the purchaser. Shaving brushes and artists' brushes of all sizes are on hand.

The "Emu" verandah blinds are sold complete with all fittings, and all sizes are in stock, while specially long lengths are made to order. The best English duck is used, giving a sense of durability. If required a strong iron stay is put in as a guide to prevent flapping in gales.

Ropes and cordage are supplied in all sizes, and are made from pure manila, flax, sisal, hemp, cotton and coir fibre. Endless cord, blind cord and sash crd of jute, hemp and cotton are included.

"Globite" and "Fordite" suit cases are on hand, including those with patent pilfer proof hinges.

Farleigh, Nettheim & Co., of 80 Clarence-street, Sydney, feature suit and attache cases of fibre in all sizes and fitted with best English locks. Suplied in nests of five are lunch cases, and a special feature is made of school cases, extra deep with steel frame and guaranteed to stand rough usage. Solid leather kit bags and suit cases are set off with E.P. fittings. For men and women leather cases fitted with toilet requisites are supplied. In addition brief and Gladstone bags are in stock, and cabin trunks of fibre are made in all sizes. Music cases are sold in attache case style, and a speciality is made of cases for holding Masonic regalia. Ranging from 20 in. to 34 in., oak-grained steel trunks are in large supply. Dog collars are sold 12 to a card, the width ranging from ⅝ in. to 1½ in. Leggings are made with spring front, and puttees are on hand with five buckles and toe-cap over the instep. Other lines from the big stocks are men's leather belts, rug straps, mail bags and leather aprons fully fitted. Dog collars of leather and plaited kangaroo skin are in different widths, and chamois leather is sold in sizes varying from 1½ to 4½ square feet. Motor gauntlets and housemaids' gloves, made of roan, yearling and calf skin are stocked in large quantities. Handles for attache and suit cases are supplied with D's or with strap.

Canvas water bags, with and without taps, butter coolers, calico and duck tents and flies, and dust and water proof motor car covers of medium and best quality calico, are amongst the other lines carried by the firm.

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A. Forsyth & Co. Ltd., of 339 Kent-street, Sydney, have built up a reputation for their products, which are sold under the name "Forsyths." They make rope and cordage of various qualities and sizes.

Fibrous plaster requisites and harvest twines are in stock, and other lines are towing ropes in outsizes and extra long, and driving and transmission ropes of manila. Tarred thatching yarn is a speciality, and other requisites are lead lines for measuring sea depths and measuring the speed of vessels at sea.

W. S. Friend & Co., of 113 York-stret, Sydney, are making a speciality of their "Red Rule" cotton yard mop, which is full in the centre, where there is more wear and tear. Two grades are made, Nos. 1 and 2, the latter being the cheaper.

Combination mops and brooms and kitchen mops are stocked. The "Johnson" outfits have proved popular, including as they do wood polisher and one pint of liquid polish. The "O'Cedar" mop No. 1 is sold in oblong tins, and the No. 2 in round tins.

Worthy of note is the "Swan Super Scrub" single wing scrubbing brush provided with snout on the end and having a bevelled edge.

The locally made ropes and cordage under the "Emu" and "Renown" brands are available.

A combined water bag and butter cooler, and the "Victor" and "Goodenough" butter coolers are featured, and water bags with and without taps are made in all sizes.

Suit cases and attache cases, and fibre and leather school bags, with a large number of other lines are included in the stocks.

Grimley Ltd., of "Monarch House," Broadway, Glebe, have put in new stocks of household brushware, including stove and flue brushes, scrub, hair, and bannister brushes. Brooms are in wide assortment, including yard brooms, household and deck brooms. Special are the brushes for racehorses, and "Dandy" brushes are procured from local stocks and imported.

Suit and attache cases are in wide assortment, made of Swedish fibre as well as vulcanised fibre. The sizes range from 12 to 28, and the various patterns are fitted with nickel plated locks or clips, and metal or fibre handles.

Razor strops stocked include the "Commonwealth," "Cooee," "Tourist" and "Horsetail." Sold on cards are men's belts, dog collars, watch pouches, hamper strap with metal handles, blocked leather leggings, and leather label holders.

P. & A. Herford, of 53 Parramatta-road, whose showrooms are in Bathurst House, Sydney, are the makers of the "Trip" brand suit cases and bags. A speciality is the vulcanised fibre, and in addition cases are made of solid leather and fibre. A special line is a handsome case with nickel frame for the body and wood frame in the vallance-surrounded lid and corners capped with leather. Two nickel lever locks and metal hinges serve to add to the neat appearance of the cases.

Made to stand hard wear is a case with hide-covered frame and an invisible frame in its lid. Two strong buckle straps help to strengthen the case, and the corners are exceptionally well protected and the turnover edges are strongly stitched and riveted. The lining is strongly reinforced, and there are inside straps, best nickel locks, and hand-stitched guncase handle of solid leather.

Hill, Magill, Ltd., of 131-33 York-street, Sydney, are able to supply cordage and rope in all sizes and qualities. The "Comeback" jute sewing twine registered in the firm's name still retains its popularity, and in addition binder twines are available.

Ladies' handbags in all the latest shapes and fashions are in wide assortment, the popular crocodile finish being well to the fore. Other materials are patent leather, real morocco, and suede. The interiors are well finished, and are fitted with a good selection of toilet requisites. Studded dog collars are sold six on a card, and leather and fibre suit cases as well as small luncheon cases are in stock in various qualities. Rug straps are in lengths up to 72 in.

S. Hoffnung & Co. Ltd., of 163 Pitt-street, Sydney, are able to supply from large stocks cordage in all sizes from chemists' string to large-sized ropes.

Toilet brushes are in wide assortment, some with polished wooden handles, and others of metal, xylonite, or other material. The English-made "Briton" brushes are well to the fore, and cloth brushes are available with wooden and metal handles. Special is the "Red Fox" hair brush with a real buffalo handle and white bristles. The "J.B.M." mop is sold in round tins, and the well-known "Homeware" and "O'Cedar" mops are also on hand. Painters are well catered for, and other kinds include stove, shoe and scrubbing brushes. The firm's own brand of paint and varnish brushes are sold on cards under the names of "Protector," "Fortress," and "Signal." The "Dairy" mop embodies new features.

All grades of leather and fibre cases are well stocked.

S. C. Johnston & Son, of Queen-street, Rosebery, Sydney, are manufacturers of a wide variety of brushware. Made for painters are 1 lb. brushes in lots of fifteen and twenty. These brushes are extra fine, and are in well-seasoned wooden handles. The brush has a polishing surface of 6½ in. and 9 in., and the handles are long and smooth with a protecting felt band. A floor polishing brush is another feature, operating like a carpet sweeper, and a dusting mop under the bristle.

M. A. Jones, of 178 Clarence-street, Sydney, makes a speciality of sails for both large and small boats, and in addition makes a wide range of other canvas products, including verandah blinds, water bags, cable cot folding stretchers and seats. The motor car tent is another line worthy of note, several designs being sold at varying prices. The covers are one of the best Birkmyre cloth and the ends and sides are of duck. The tents are sold complete with poles, pegs, and bags.

Joyce Bros. Ltd., of Holt & Cooper-streets, Sydney, manufacture a special line of calico bags, and also chaff and corn bags, cheese cloths and bacon wraps. Broom makers' twine is made in large quantities, as are twines of cotton and jute for all trades and industries.

Jute Industries Ltd., of 40 King-street, Sydney, carry stocks of Scottish-made cloth, yarns, twines, cordage, rope, bags, webbings, carpets, and other fabrics. Cotton belting is made in various widths. Glass cloths, bags, hessian, sackings and tarpaulins are also in heavy supply.

Keep, Macpherson Ltd. carry full stocks of their registered "Dingo" brand leather and fibre goods, and the same name serves to cover a variety of other products, including tooth brushes made in England, and brooms with thick black hair. The "Wild Boar's Head" brooms are a feature in plain and pascal tinted stocks. Special are the shaving brushes of French and Australian make sterilised against anthrax. A bannister broom serves a double purpose, with hairs on one side and millet on the other. The "Web" brand of English shoe

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brushes denotes good quality. Cartons hold the "Rex" brand hair brushes and cloth brushes with hollow back and finger groove in the side. "Victor" is the name given to a line of hair and nail brushes, and the "Swan" brand nail brushes have black bristles on a white handle, some bearing a single line of bristles on the side. Useful is a patent wall and cedar duster with long, slender handle, the turn of a screw enabling the brush to be set at any angle for dusting corners and crevices.

W. Kopsen & Co. Ltd., of 70 Clarence-street, Sydney, have full stocks of sail cloth and canvas, from Richard Hayward & Co. Ltd., England. Water bags are also held in all sizes.

A wide variety of brushes and brooms are stocked including short deck scrubbing brushes, winged and plain, with diamond back. These are made in various sizes. Specially strong are the copper wire drawn tuft deck brooms in sizes of 12, 13, 14 and 15 in. Round oil brushes are made in various sizes, and paint and varnish brushes are in wide assortment. Worthy of note is the "Rubbertite" vulcanised paint and varnish brush. Tar brushes with long and short handles are available, and foundry brushes are made with and without handles.

Made of best Italian hemp are deep sea leadlines, plain and cable laid, in sizes ranging from ¾ in. upwards. Two and three thread spun yarn is available for serving rope and other eye splices. Hambroline is available in coils, and houseline in coils and hanks. For roping sails boltrope is made from one inch upward, and Europe rope may be obtained. Four yarn lanyard rope for rigging and ratline for the same purpose are in large supply. All kinds of cords are on hand.

Lyon & Milling, of 62 Clarence-street, Sydney, have on hand fibre suit cases ranging from 18 to 25 in. Dog collars are marked at keen prices and are sold in cards containing a dozen. Harvesting and motoring gloves are sold in several qualities.

The firm's own brand "Kookaburra" brushes for all purposes are made of bass, coco and millet. Dandy brushes are strongly made and cane front yard brooms are in three sizes. Hair bannister brushes come in all standard sizes, as well as fibre stable brooms. Varnish brushes are in assorted sizes, six to the card. Whitewash brushes bearing the "Simplex" and other brands are on hand, as are all the well-known makes of mops. A combination of floor scrub and mop is a worthy labour-saving device. When the mop is turned over the cloth mops up the water, and the turning of a crank handle wrings the water out. "Kookaburra" scrubbing brushes are available in S shape and single and double wing, and hair brooms are of grey and black and grey. Cloth brushes are made with hollow, curved and straight back, with black fibre. Military hair brushes, tooth brushes and a variety of other requirements help to make up the large stocks.

Manok & Renkert, Ltd., of 432-34 Kent-street, Sydney, have a large factory devoted to the manufacture of high-class travelling requisites, and as large stocks are available orders can be promptly filled. Catalogues are being prepared, and will be posted on application.

Ladies' fitted cases are in wide variety as to style and quality. A typical bag is in plain hide or crocodile suede, grey, brown, and lined water wave moire blouse case pocket is in the lid. The equipment includes white xylonite hair brush, comb, soap, and powder box, tooth brush and hairpin rollers, and mirror with stand.

Combination writing and dresses cases are in solid polished hide, and have two nickel sliding locks and cover of steel frame. Pockets are in the lid for papers, and loops for pens and pencils. Fittings are on standard to lift out, and the fittings provided include hair brushes, comb, cloth brush, soap dish, tooth brush bottle, safety razor in case, looking glass, shaving soap, and manicure instruments. The case is of superior make and finish, all the fittings being of nickel. Other grades are available. Fitted dressing cases, ladies' blouse cases, and ladies' suit cases are in great variety. Men's fitted cases are made in all sizes, and are varied as to the contents, which include a large number of useful articles. Handy sized attache cases are provided with a well assorted toilet outfit, including scissors and razor. Canvas drawer trunks are made on a solid foundation with green or brown waterproof canvas. Tennis bags are very strong and light, and are fitted with all necessary conveniences. Auto luncheon cases are in great variety as to size and capacity and fittings, suitable for two or more persons.

Comprehensive is the running-board style for six persons. It is covered with black enamel duck, with E.P. corners and washable lining. There is a removable tray under which are spaces for two flasks and table linen. The contents include stainless knives, forks, spoons, tin opener, salt and pepper shakers, white enamel aluminium cups and plates, two screw top glass jars, two quart size thermos flasks, and one small and two large N.P. metal food boxes. A strap to attach the trunk to the running board is included.

Mason Bros. Ltd., of 102 Clarence-street, Sydney, supply rope and cordage of all sizes, as well as gardening and motoring gloves.

As agents for Samuel Foster and Sons they stock no less than twenty grades of millet brooms. Scrubbing brushes have extra wide wings. Brushware is in stock for all trade, domestic and industrial purposes. The "Jersey" and "Acme" cream scrubbing brushes are strong and well made. The "Manifold" nail brush has a nail cleaner at one end. Bass and machine-made brooms have the tufts fitted into the stocks with steel wire staples, and the "Hostler" stable broom is strongly made. The "Dix" broom for household use is recommended, and toy brooms carry gaily coloured stocks.

W. J. Moxham & Co., of 35-41 Castlereagh-street, Redfern, manufacture a wide range of millet brooms, all with a different brand. "The Pearl of Brooms" is made with a highly polished handle and an extra strong head. The "Perfection" has a black handle, and is of extra good quality. The "Triumph" No. 1 is a carpet broom with a white handle striped in seven lines. Other carpet sweepers are "Our Domestic" and "Special Gold Lock." A string of other brands of millet brooms and carpet sweepers is included in the list.

Noyes Bros. (Sydney) Ltd., of 115 Clarence-street, Sydney, stock string, twine and rope of all sizes and quality, made from cotton, hemp and jute for all trades.

Palmer & Ryall Ltd., of 67 Fitzroy-street, Surry Hills, Sydney, manufacturers of all kinds of brushes, specialise in the "Lifeguard" shaving brushes. These are made of specially sterilised bristles in an aluminium ferrule on a wooden base. They are sold in individual cartons. A second line is made specially for hairdressers. Another sterilised brush recently introduced with success is sold in cartons and has serrated stiff bristles. The "Relian" is sold in several grades of quality.

"The Scant" is the name of a broom that has won favour because of its durability. Mixed hair brooms bearing the names of the "Rajah" and the "Eclipse" are guaranteed. Dusters, varnish brushes, hand

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whisks, and paint brushes are made in various sizes and qualities.

O. Pendergast & Co., of 410 Kent-street, Sydney, stock under the "Emu" brand Australian-made rope and twine. Tarred rope for naval and marine use is in stock, while verandah blinds are in lengths of 45 and 60 ft., the sizes ranging from ½ in. to ⅝ in. Venetian blind cord is supplied in three weights in hanks of 72 yards, made of plaited cotton and best flax. Sewing and wrapping twine of sisal hemp, and clothes lines are sold in standard lengths. "Emu" binder twines are of special strength and are sold in a number of fibres and qualities.

J. Scott Ltd., whose factory is at Rosebery-street, Mascot, and show rooms at 163 Clarence-street, Sydney, make all sizes of twine and rope from best New Zealand hemp. Their products bear the "Renown" brand and include tent lines of best flax and manila. Cotton rope is sold in all standard sizes and clothes lines are available in lengths of from 9 to 24 yards. The harvesting, wrapping and seaming twines are in various grades. Sisal plough ropes are sold in coils, and one-ply twine is in balls, and two-ply in spools. Tarred gaskets are in coils, and are made of best and second grade New Zealand flax. Hide and leather lashing of different sizes are made in coils, and two to six-thread cord in balls. Tarred cordage is made to meet all shipping requirements, and for thatching. Deep sea lines are available in best white hemp, as are fine twine tow lines and boat lacing.

Smith, Copeland & Co. Ltd., of 33-37 Regent-street, Sydney, claim to give special value in their suit cases and travelling bags, sold in sizes ranging from 18 to 28 in. They are made of the best heavy Swedish fibre, and are sold in lots of five and six.

Tool bags are supplied in six qualities, and cash bags of calico or duck are made in four sizes. Gloves for workmen, gardeners and motorists are made of duck and of leather. Special are the workmen's gloves, with heavy duck palms and light backs. Another line has a basil or felt palm and duck back. Housemaids' gloves are supplied in three qualities. Solid leather kit bags are canvas lined and provided with leather handle and side locks and clasp. The sizes are from 18 to 20 in. Genuine cow hide suit cases are sold in two qualities as are the cow hide grained suit cases. They are well finished and of good appearance.

The Standard Brush Co., of 14-16 Botany-street, Waterloo, are the manufacturers of household brushes, brooms, brushes for painters and varnishers and other tradesmen. About twelve brands have been registered for the different makes. The "Bosca" is the name given to a flat varnish hand enamel brush of pure bristles, and made in seven sizes from 1 to 4 in., the bristles being extra thick, while in the "Tiger" and the "Monarch" they are medium. Weather board brushes are brass bound, and are sold in seven sizes, each quality under a different name. Flat wall brushes are sold under five different names.

The Standard Leather Goods Factory Ltd., of 39-41 Dixon-street, Sydney, specialise in ladies' handbags, all the latest designs and fashions being followed. In addition they make a wide variety of suit cases, fibre and leather bags, belts and similar articles.

Mr. Samuel Taylor, of 44 Foster-street, Sydney, makes brooms and brushes for every conceivable use. Fifteen varieties of millet brooms are made, and a special mop bearing the letters "S.T." is made of best white cotton. A polishing mop bears the same brand. "Taylor's Reversible" is the name given to a hair broom, the stock of which is fitted with a malleable steel atachment permitting the reversing of the broom for uniform wear. Another broom is of bristle and made in torpedo shape. The "Union" cream can brush has specially shaped ends and is made in three sizes, and a "Jersey" pattern cream can brush is made 10¾ in. overall. Double banister hair brushes have 7 and 7½ in. length in the brush, and a full millet brush on the back. Made specially for cleaning water closets, a new brush is curved so as to reach all parts of the pan. A solid upper ferrule glue brush is made in six sizes, and has a copper wire binder round the bristle, thus preventing the spreading and spoiling of the bristle. A bristle faced broom has a hair centre and another is made of palm fibre. A theatre broom has a raised centre in the stock, and is made in two qualities.

S. Walder Ltd., of 340 Pitt-street, Sydney, make plumbers' tool bags, hand sewn and riveted, solid leather with buckle straps. Copper riveted carpenter's tool bags are extra strong and are sold in five sizes. Made of webbing and having rope handles, carpenter's tool bags are side by side with double brown canvas bags in English sizes. A collapsible table, made to serve the purpose as well of a fibre suit case is handy for campers and motorists. It is provided with grip and lockers. Four folding chairs go with the table. The "Kompak" stretcher completes the outfit. Gladstone bags and attache cases, suit cases in leather and with riveted handles are made in various sizes. Leather kit bags with nickel fittings are of extra quality. Ore bags are made of heavy navy canvas and are in sizes 23 x 11.

Williamson, Croft & Co. Ltd., of 272 Castlereagh-street, Sydney, stock Australian-made brushes of all kinds. Special is the "Perfection" varnish brush, in various sizes, and brushes for painting motor cars, paperhangers' brushes, and badger softeners are in stock. Oval copper bound paint brushes are sold in fine qualities. Brass bound weatherboard brushes bear the brands "Acme" and "Mascot." Flat enamel and varnish brushes are made in three qualities, and special is the "Clinker," made of white fibre. For painters there are flat and round jamb dusters, flat bevelled lining fitches, stencil brushes with black bristles, and black bevelled copper bound brushes of special quality and various sizes.

Mr. A. Wyld, of 127 Eveleigh-street, Redfern, has given the name of the "Wyld Boar's Head" to the many lines of brushware he manufactures. Millet carpet brooms are said to be good for the purpose. Brooms for use in public halls are made in 12, 15, 18, 21, 24, 30, and 36 in. sizes, and lawn brooms of bassine are made in two sizes. Banister brushes are in three sizes and of different kinds. On long bamboo handles are brushes for cleaning ceilings, some being specially made for finding their way into corners and crevices. Winged brooms of hair and bristle are enamelled finish, and thistle brooms are to be had in six sizes.

John Zevenboom & Co., of Kent and Market-streets, Sydney, supply a special brush for cleaning motor car engines, made in six sizes, ranging from 6 to 12 in. Brushes for painters include a line specially made for washing down walls in two qualities. A variety of other painters' brushes and for all trade uses are stocked. Fibre whitewash brushes are on hand in seven sizes, as are bristle kalso. brushes. Enamel or hat dye brushes are in two qualities and sizes. There are nine flat varnish or paint brushes, and the "Wombat" brand is in six sizes.

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Melbourne

Briscoe & Co. Ltd., of 391 Little Collins-street, Melbourne, in addition to Australian cordage, have stocks of English venetian blind cord, and glace cords, all colours. An unusually complete range has also been landed of fishing lines. From the Belfast Ropeworks Co. Ltd. there are cotton lines, on reels, neatly boxed. These are 50 yards in length. In American fishing lines, plaited and braided, stocks include "Winchester," "Evergreen," "Clover," "Achilles," "Ironsides," "Sea Maid" and "Crimson Rambler." Moosehead and Kingfisher lines are amongst the silk varities. Australian cordage is constantly available, both ropes and twines of every kind.

The brushware department covers a wide range for household purposes as well as for painters. Supplies are now on hand of genuine rubber-set varnish brushes of all sizes. At this time of the year paint brushes will be increasingly called for. A selection is kept of kalsomine brushes suited for household use. The same applies to enamel and stain brushes. Carded brushes are popular with retail stores. They enable a handy display to be made without any great outlay, and need only be kept in view to find buyers.

For kitchen uses there are scrubs, pot brushes of fibre, bristle, or bass, and stove brushes. For aluminium pots, which are in almost universal use, a brush of a combination of bristle and wire gives good results. A special carpet or mat broom known as the "Universal" is selling well everywhere. The shape is not unlike a millet, but of straight bass fibre, bound with tin for strength. Carpet sweepers of all makes and patterns are always on hand.

The firm maintain good supplies of toilet brushware, Rigby's and others, including hair, nail, tooth and shaving brushes, and in many varieties. Reference should be made to an Australian-made tooth brush which is excellently done. The bristles are good, the handles of modern type, in colours, and the entire get-up, even to packing and boxing, is of the best.

Downs & Son Pty. Ltd., of Tinning-street, Brunswick, are well known to the trade by their "Samson" brand of cordage. In the many types of cotton lines special attention has been given to the process of finishing, much of the machinery for this purpose having been designed by the firm. It has been found possible to market all classes of cotton twines and cords in reels, a plan which has proved popular with buyers.

Cords and twines for manufacturers receive special attention. These include the twines used by chemists, upholsterers, saddlers, bottlers, and weavers, which are constantly obtainable from stock, or may be ordered to any definite specifications. Large stocks are also maintained of every kind of fishing line, sash lines, blind cords, and clothes lines.

The Excelsior Broom & Brush Co., of Park and Best streets, North Fitzroy, are manufacturers of household brooms and brushes of all kinds. Their factory is almost wholly devoted to domestic brushwase, which is produced on a large scale. Hair brooms, millet brooms, scrubs, banisters, blacking brushes, all are made in various sizes and grades. "Excelsior" goods are now well known to the trade, and several recent additions to their catalogue should interest buyers.

An important department has been organised for the manufacture of feather dusters. Commenced a few years ago, the range of dusters has gradually been extended until to-day a dozen or so of different patterns may be obtained. The quality of the feathers used in this class of article is the principal feature. Ostrich feathers of good quality are now used exclusively; these will not injure the most delicate surface. It is a strange turn of fortune's wheel that a set of feathers, which in bygone days could not be purchased for five pounds, are now used by milady for dusting her furniture, and may be had for a shilling or two. A selection of the various lines is a useful addition to the stock of the retailer. Quite a number of sizes and shapes are available.

For Christmas trade a "Boudoir" duster has been made. It is a handy little article for the dressing table, with gilt handle, decorated with flowers, each fitted into a neat box. A good idea is embodied in another long handled feather duster which is patented under the name of "Adaptable." Fitted with bolt and thumb screw, it is made so that the head may be adjusted to any angle. It is used for walls and ceilings, pictures and inaccessible places, while the handle can be detached for use as a hand duster.

Hair brooms are made in many kinds, prominent brands being the "Queen" and "Magnet." The latter, a new pattern, is of unusual shape, and a rubber mounting at each end obviates the danger of injuring the furniture. It is all hair, and of first grade throughout. Hair brooms are made up to 36 in.

In the millet broom section again the firm have given years of attention to the production of a first class article. A number of different kinds are made to meet the varied needs of users. The "Ideal" has exceptional features, representing the best the makers are able to turn out. Others are the "Clean Sweep," and specially constructed brooms fitted with mixed materials. One of cane and millet, originally designed for railway uses, is an efficient type for hard wear, as on concrete or stone floors. The household millet brooms are branded with numbers; 8, 6, 5, and 4 indicating the number of bindings used in manufacture.

J. S. Kidd & Co. Pty. Ltd., of 410-12 Lonsdale-street, Melbourne, have recently placed in stock a full supply of English made brushes for household, dairy, and farm use. These comprise brooms, scrubs, nail brushes, and a big selection of useful brushes for paint, varnish and enamels. Some excellent lines are shown in cheap goods for retail trade, such as are in demand for floor stains and small painting jobs. Handy carded brushes are recommended for the hardware store counter.

Australian brushware is represented by "Swan" brand goods from Western Australia, and "Duck" brand from South Australia. Both these makes are of good quality and value, and their general finish and appearance are quite attractive. A range of Zevenboom's brushes is also on hand, principally clothes brushes, nail brushes, and hair brushes. Another good range of brushware is of Swiss production, and covers a number of useful domestic lines.

All classes of sash cord, jute, and cotton, either plaited or braided, garden lines, clothes lines, and fishing lines are in leading English and Australian makes. For stores carrying saddlery there is a supply of all the regular leather goods available. Dog collars, straps of all kinds, bridles, leashes, and whipthongs are among the lines on hand.

Geo. Kinnear & Sons Pty. Ltd., of 114-16 King-street, Melbourne, with works at Ballarat-road, Footscray, are makers of "Emu" brand cordage and twine. Their range covers all requirements of the trade, including sash line plaited or braided, supplied either in hanks or coils; verandah blind lines, ½ and § in., and venetian blind cord, put up in hanks of 72 yards. Shop twines are usually of either jute, cotton, or Italian hemp. They are of varying thicknesses from a very fine string, approximately 2000 ft. to the lb., to the heaviest used.

Sewing and bagging twines, binder twines, plough

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lines, manila ropes of all sizes, as well as ropes of New Zealand flax, are all produced by the firm, who also make nets for cricketers, pig nets, and a range of mats and matting of all kinds, cricket matting, coir mats, and hessian.

Lacy & Osborne, of 391-93 Lonsdale-street, Melbourne, have for many years manufactured travelling bags and cases, as well as a range of smaller goods, such as purses, wallets, and general leatherware.

An important side of the firm's factory is that devoted to travelling trunks. A large selection is possible in this department, from the solidly built "Saratoga" to the lighter article made of fibre. The "Saratoga" trunk is made for hard use. The wooden frame is securely fitted, and coverings are of patent leather or strong fibre. Battens or hoops are added to lessen the chance of injury, the whole being brass bound at the corners and other exposed parts. Lighter trunks are available, canvas covered, and bound with cane hoops. Altogether an extensive range of travelling requisites is offered here.

In addition to the regular bags and suit cases, which are perennial sellers, a number of bags and cases for special uses have been designed as occasion arose, and are now obtainable as stock lines. There are cases intended to hold a set of bowls made in different qualities; bags for the physician; and portfolios for music and legal documents. Quite a useful bag in this section is one made to hold catalogues and similar books. Originally made for car salesmen, this portfolio is handy for those whose business compels them to carry several such publications. Pockets are fitted for order forms or other documents.

Attention is given also to hat boxes of various sizes. These may now be had with a side handle fixed in such a way as to be conveniently carried. A number of different patterns are to be had in hat boxes, and various coverings, patent leather is often used for this purpose, and indeed practically all goods can be supplied in this material if required.

Amongst fibre articles the square shopping bag is still used fairly well, although the firm report quite a falling off from the great demand of a year or two ago. A cheap suit case would seem to be more in request to-day for the purpose. Kit bags and brief bags are also made, although not so largely. The attache case has to a considerable degree usurped their position. Every possible size of attache case is turned out, in several qualities of fibre. The leather variety, however, firmly holds first place

James Miller & Co. Pty. Ltd., of 357-59 Little Collins-street, Melbourne, are manufacturers of "Anchor" brand cordage and twines of every kind. The hardware trade is familiar with the brand, in sash cords, manila rope, and shop twines. Special attention has been given by the company to binder twine, of which they are large makers. It is available in four grades: "Excelsior," special, standard manila, and "Eureka" pure manila. The approximate length to the pound weight of the four qualities is 425, 475, 500, and 550 ft. respectively.

An extensive range of shop twines comprises every need of the store, as well as special twines for butchers. The Italian hemps are advisable for the latter, as a very strong article is required for their use. Other twines for special trades are those for bottling, broom making, mattress and collar twines. For brooms the coloured lines are used, and saddlers need either a five or six cord for their requirements.

Sewing twines meet with continual demand throughout the year. They are made in three, four, and five ply, of various materials, usually hemp or jute. Many stores in grain and produce growing districts find it profitable to feature sewing twines. The "Anchor" brand offers a complete series of grades, distinguishable instantly by the labels, which vary in colour according to type. Different sewing twines are made and recommended for such goods as chaff, flour, onions, wool and potatoes. The approximate turns to the pound, as well as the breaking strains of each class of twine, may be found in the firm's catalogue.

At this time of the year verandah blind lines are likely to be inquired for. These are supplied of jute, laid or plaited, and also of cotton, the latter being of the better quality. In every case the lengths are of either 45 or 60 ft.

For fishing districts such goods as deep sea lines, log lines, and boat lacing are useful stock, and may be had in their standard weights, made of a superior hemp. Other sundries are tarred rope, and cordage of the same sort such as marline, ratline, bolt rope, and jute pipe packing. Horse and cattle ties, halters and leg ropes are regularly produced at the works, in addition to plough reins in every material.

Thos. Mitchell & Co. Pty. Ltd., of 360-66 Lonsdale-street, Melbourne, are makers of "Victor" brand brushware. At this period the various paint and varnish brushes will be in request. A special varnish brush is being made for tradesmen which is recommended as of reliable quality. An all-bristle article, care is exercised throughout the process of manufacture. Strongly bound and securely set, nothing has been neglected which will contribute to good work and long wear. The new method of rubber setting is used, making it almost impossible for the bristles to loosen. The finish is excellent, giving a good apppearanec to the brush.

A large section of this department is devoted to domestic brushware. Hair brooms, banister, stove, shoe, and scrubbing brushes of different kinds are in every pattern and grade. Recent developments in equipment have made it possible to turn out a cheaper class in almost all brushes, and of a quality which could not have been supplied a few years ago. This applies not only to the ordinary household article, but also to whitewash or distemper brushes, and to the small paint brushes used for applying floor stains and polishes. Many of these are remarkably good at the price, and serve for the home user who has occasionally to do a small job, and cannot be expected to purchase an artisan's tool. Short lengths of good bristle, which were previously wasted, can now be used by special machines in the cheaper lines, and make quite a good article at a low cost.

A useful separator brush is made for cleaning the tubes and plates of the machine. It is, however, a handy appliance for many other purposes, and is an easy seller. A wonderful range of similar small brushes is now available for different purposes.

American brooms are also made by the firm. The millet used is of excellent grade and strength. Arrangements have been made for a supply of Victorian millet which is considered of exceptional quality. The colour is bright and clean, and adds greatly to the attractive appearance of this line. Different designs and weights may be had.

Mr. I. Sher, of Burns-lane, Melbourne, is a manufacturer of every description of leather and fibre goods.

Among the many lines supplied a new type of case is about to be placed on the market, which is expected to find a ready demand. The new article is known as the "Holsmor" expanding suit case, and it may be ordered either of leather or vulcanised fibre of good quality. Many efforts have been directed in the past, without much success, to the problem of providing a case which may be enlarged when required, without sacrificing anything of strength in hinges and fittings, or involving either

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unsightliness or undue bulk. This device would appear to meet the required conditions successfully. The new 24 in. suit case, as an example, has the appearance of the ordinary pattern and yet can be very simply changed from a depth of 6 in. to 9 in. It is only necessary to pack one's case, adjusting the lid to close comfortably, when the special hinges and locks will automatically adapt themselves to the required depth, and fasten securely. The principle is such that sixteen different variations of depth are possible, and neither compactness nor rigidity are lost by the means used to obtain this result.

These cases are made in all the usual sizes, and it is claimed that one case can thus be made to serve for several members of a family, without the expense of two or three of different dimensions.

John Zevenboom & Co., of 333-35 Elizabeth-street, Melbourne, are suppliers of brushes and brushware of all kinds—for tradesmen, for household, and for engineers and foundries. Paint brushes represent an important section of the first named. These are made in several grades, to suit all demands, although the highest quality are consistently recommended by the firm. The tradesman invariably uses the best. For this purpose pure bristle brushes are made, copper bound, and carefully built in every detail. Amongst the different patterns are washing down brushes, ground distemper, weatherboard, sash tools, and those for plasterers and paperhangers. A range is also manufactured of the finer fibred sorts, such as varnish brushes, fitches and stencil brushes. Kalsomine brushes are made in a large variety. In addition to those for painters, which are of superior bristles, a number of cheaper kinds are provided for home use, where long or constant work is not required.

In the section given to household brushes a very complete list is made. In addition to the usual hair brooms, banisters, and hearth brushes, there are many handy kinds which are likely to be overlooked. A cornice and wall broom, fitted with two-jointed handle, is extremely useful, enabling the user to reach the otherwise inaccessible parts of the room. The Turk's head is another useful line, while a venetian blind duster, with handle 3 or 4 ft. long, meets a need in many houses. A wax floor polisher should be mentioned also. This is usually weighted, set with short, dense bristles, and saves a deal of labour for the housewife. Other brushes for special purposes are milk can scrubs, made in several shapes and of various fibres, boat scrubs, verandah and deck scrubs, as well as such patterns as "dumbell" and concave.

For foundry uses steel wire brushes are obtainable. These are in soft or hard wire, and of many different sizes. Steel wire tube brushes are supplied to fit every size of tube, and steel wire brooms, 12 in., are either 4½ or 6½ in. in length of wire.

New Processes in Brush Manufacture.

Interesting processes are now used in the making of brushes, involving the installation of special machines which, while greatly economising operations, enable the factory to offer a much superior type. In most cases, also, a better brush can be sold at a considerably lower price. The examples mentioned here were inspected in course of construction at the works of the Excelsior Broom & Brush Co., in North Fitzroy, Melbourne, where household brushware is made almost exclusively.

The hair brush processes have been completely changed by the setting machine, an intricate looking apparatus which still requires skilled operatives, but enables the setter to do much better work in faster time. A steel device, resembling a long "finger," inserts each knot of hair or bristle into the drilled holes of the wood mounting in such a way that nothing but splintering the entire article could allow a single knot to be withdrawn.

The operative holds the wood in position, and the machine does the rest. A spool of strong gauge wire is fitted to the appliance, and short sections are automatically cut off, bent through the knot of bristle, and forced into the hole in such a manner as to twist the ends of the staple crosswise clean into the wood fibres. On sawing a brush in half the two ends of the staple are seen to be embedded firmly in opposite directions. It is undoubtedly an effective job. An additional advantage, most important in the production of a reliable sweeping brush, is that with machine setting it is impossible to insert knots of varying size. From the brush maker's point of view, any brush which is set with neat even rows of hair on the outside, but with larger knots here and there inside, is an imperfect brush. The machine cannot be tampered with in this way. It is designed to set knots of perfect evenness only.

An operation of equal interest is the making of a millet broom. For years this firm has given the most careful study to the question. One special quality, which they have named the "Ideal," is chosen for description as carrying the definite guarantee of the makers. The close atention given to this broom throughout the making process is surprising to the visitor, who wonders whether, in these days of machine production, the average buyer is prepared to pay for what is practically a hand made article. By no other means would it be possible to embody certain features which are included in this brand. The manager, Mr. A. E. Wallace, points out that while price is a consideration always, a demand exists for a broom-de-luxe, so to speak, provided the additional wearing qualities are there.

Careful picking of the millet is the first consideration. This is Australian grown, and indeed every detail, even to the wire bindings, are made in this country. The handle being firmly held in the machine used for the purpose, the operator selects by hand the already graded millet, rejecting odd strands which may be doubtful. The broom is built up layer by layer, each group of bunches being bound with wire under great tension, care being taken throughout that an even balance is maintained. As the wiring progresses strips of metal are inserted to hold the millet without danger of cutting by the strained wire. The addition of strips of coloured cloth assist the binding, and add a neat appearance to the job.

After this the broom receives its only machine operation. A wonderful apparatus stitches the rows of coloured twine through and through the straw, knotting them firmly at intervals. The same process, under extreme pressure, forces the millet into the flat and neatly rounded shape which is familiar to all. The ends of string are removed, the millet is trimmed by a cutter, and labelling finishes the job. It is the boast of the firm that this broom is so balanced that it may be stood upright without falling, a test which they proceed to apply "while you wait."

John Zevenboom & Co., of Melbourne, have installed special appliances for the setting in rubber of all paint and varnish brushes. This method has been in use overseas for some time, and is considered by the trade to have given complete satisfaction.

The bristles are actually "set" in rubber, which is vulcanised during the process of manufacture, rendering the bristles so secure that, provided the work is correctly done, loose hairs are entirely eliminated. An undoubted advance on previous methods, the process is by no means simple. Accurate treatment of the rubber is essential, and before marketing brushes with the rubber setting, long and exhaustive experiments were necessary. These are now completed, and the new class of setting is in everyday use.

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Electrical Section

Notes from New Zealand

(Specially Contributed.)

Pukerua Bay area was switched on to Hutt Valley Power Board electric supply on October 3.

Ashburton Power Board reports that several consumers have utilised electricity for heating chicken brooders with very satisfatcory results.

Horowhenua Power Board reports the following total of connections to date:—Lighting, 940 kw.; industrial motors, 232; milking motors, 365; heaters and irons, 2502; ranges, 279; water heaters, 507.

Electric light and power was switched on to the Borough of Lawrence, by the Otago Power Board, on September 28. After several abortive efforts a loan of £40,000 was carried last April and the scheme was then proceeded with.

Wairarapa Power Board has decided to give community lighting of shop verandahs a trial, and estimates that making due allowance for interest, depreciation, cost of current and repairs, the board could provide lamps for this purpose at a flat rate of £4/10/- per annum.

Ohinemuri Gold and Silver Mines Ltd. has contracted with Thames Valley Power Board for the supply of power for a term of ten years. The agreement provides for the erection of an 11,000 volt line and a bond of £1000 to safeguard the interests of the board.

Te Awamutu Power Board's finances are showing a steady and very satisfactory increase. The revenue for July was £1134, against £916 for the same month last year. The board now has connected to its mains a total of 1244 lighting installations, 423 milking motors, 83 water pump motors, 57 other power plants and 73 ranges.

Poverty Bay Power Board has notified the Uawa County Council that if there is sufficient demand for electricity offering, it might be possible to have the district gazetted as an outer area. The council is favourable to the proposal and will arrange a meeting between ratepayers and the board to discuss the position.

Golden Bay Power Board has been informed by its consulting engineers (H. W. Climie & Son) that if there is no hitch in carrying through the loan proposal for the development of the Campbell's hydro-electric scheme, the generating plant should be delivered in time to give supply to the township and main roads by next spring.

Marlborough Power Board has agreed to take over the power plant of the Havelock North Town Board at a valuation of £1900 and become responsible for interest and sinking fund on the plant, relieving the town board of further liability. In return the board will guarantee the use of power to the value of £700 per year.

Grey Power Board reports an increase of 37 consumers for September, bringing the total up to 1215, and the total connected load to 2112 kw., made up as follows:—Lighting, 423 kw.; power, 1512 h.p.; heaters and irons, 500 kw.; water heaters, 15 kw.; ranges, 42 kw. During the month the peak load reached 780 kw. on several occasions.

Dunedin City Council has adopted a report of the Electric Power and Lighting Committee recommending the erection of a dam in the Waipori River, some 300 yards below the present dam. With an ultimate height of 110 ft. the dam is expected to cost £226,225, or a further £10,000 if the foundations have to be carried down to solid rock all the way.

Thames Valley Power Board has agreed to the institution of a community lighting scheme for shopkeepers at Te Aroha, the board to instal the lamps and fittings complete at its own cost and maintain the whole installation except the lamps, the charge to be £3 per annum for 100 watt lamps, increasing for larger sized lamps at the rate of 35/- per 100 watts.

Waitemata Power Board will shortly approach the ratepayers on a proposal to borrow £80,000 for further service extensions. The results of the board's operations up to the present have been particularly satisfactory. There are now over 5000 consumers, or 1000 over the number anticipated at the present stage. A profit of £5000 is estimated on the current year's working.

Preparatory work in connection with the Kurow hydro-electric scheme on the Waitaki River is going ahead, a gang of men being engaged in boring to ascertain the depth of rock, while a Christchurch firm of well-sinkers has also been employed to expedite the work. When completed within three or four years the power supply will be linked up with the Lake Coleridge system and should enable the requirements of the south to be met for a number of years.

Franklin Power Board has resolved to submit to the ratepayers a proposal to borrow £35,000 for the reticulation of Raglan county portion of the power district. To meet the immediate needs of the district, about 14 miles of 11,000 volt line will be required in Pukekawa riding, and 21 miles in Onewhero and Port Waikato ridings. Thirty-two transformer substations will be required. The estimated cost of the scheme is £19,800, and the estimated revenue £2830.

Wairarapa Power Board reports the following total for installations during the last half-yearly period:—Masterton: estimates accepted, 1385; connected to mains, 1362; Casterton, 668/665; Greytown, 228/227; Featherston, 407/403.

A gratifying feature of the financial statement is that the showroom sales are steadily increasing. Revenue for the last six months has certainly exceeded expectations, the total increase over the corresponding period for the previous year being £4324.

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Hawke's Bay Power Board is out to reticulate the whole of the province—as far as possible. So the chairman recently stated. After two years' operation arrangements have been made to supply Hastings and Napier and before long the power taken will be twice the guaranteed amount. In order to keep prices down the board has established a trading department. Fifty ranges were ordered to begin with, but orders for a further one hundred and fifty had soon to be placed.

Tararua Power Board reports that the total increase in connected load for August was 58 kw., while the total connected load to date was 2940 kw. The board's endeavour to popularise electric water-heating has had very gratifying results, and the new dairy type cylinder has met with the approval of dairy farmers. This valuable and economical service offered by the board is becoming better known. It provides all the hot water needed for ordinary farm purposes for about threepence farthing per day, and quite a number of orders for installations have been taken.

Thames Borough Council has adopted the following amended rates for power, in consequence of the new scale of charges of Thames Valley Power Board for bulk power:—Minimum charge of 5/- per month per horse-power, or fraction thereof on maximum demand in respect of motors over 10 h.p. Motors, 10 h.p. and under, 5/- per month per h.p. installed. For power taken during the board's peak load hours, 6d. per unit. For power taken during off-peak hours, the charge per unit to remain as at present. The department to instal time switches to keep motors off peak load hours when necessary. The purchase of the necessary time switches has been authorised.

The Government is calling tenders for a considerable amount of electrical equipment in connection with some of the major hydro-electric developments. For Waikaremoana:—50,000 volt lighting arresters, 11,000 volt switchgear and metering equipment, 50,000 volt switchgear and steelwork, 11,000 volt power cables, lines pipes and valves, oil-drying and testing apparatus, 110,000 volt switchgear and proctive apparatus, also storage battery. For Arapuni:—110,000 volt additional switchgear, steel work and control board, 50,000 volt switchgear and steel work, 11,000 volt switchgear and metering, 10,000 kv.a. single phase transformers, Lake Coleridge:—66,000/11,000 volt transformers.

Central Power Board (Hamilton) has made arrangements to raise £12,000 of the Whangamarino special loan of £20,000, interest to be at 5¾ per cent. The money will be utilised to extend the board's reticulation to Te Kauwhata, Waerenga and adjacent areas, and it is hoped to push on with the work immediately.

During September the following connections were made—total connections to date in brackets:—Lighting, 36 (2640); lighting extensions, 24; heating, 30 (866); heating extensions, 2; milking motors, 21 (725); other motors, 2 (128); separator motors, 8 (9); water heaters, 25 (606); ranges, 6 (109). The total number of consumers is 2794.

A summary of the remarkable growth of New Plymouth Borough Council's electricity service provides an interesting and significant story of electrical progress in New Zealand.

Supply was first given in 1906 from a little hydro-station at Mangorei, with a capacity of 90 kw. The system comprised 12 arc and 128 incandescent lamps, the number of consumers was 41, the maximum load recorded 49 kw., the capital outlay £14,445, and revenue for the year £83.

To-day, after twenty-one years of steady progress, the figures read:—Consumers, 7200; connected load, 10,750 kw.; street lights, 438; ranges, 345; horse power of motors connected, 4230; capital outlay, £360,574; revenue, £60,107. An electrical trading department run by the council has become a very active and profitable branch, showing a net profit last year of £3091. The department installed 70 motors and 60 ranges out of a total of 82 and 125 respectively.

Horowhenua Power Board recently reported that its connected load had been found to be apportioned as follows:—

	Number.	Kw.
Lighting	—	933
Industrial Motors	230	2667
Milking Motors	354	518
Heating and Ironing Points	2475	1771
Ranges	269	1693
Water Heaters	492	315
Consumers	2668	—
Applicants	2701	—

In common with a number of other power boards throughout the Dominion, the board is getting its share of the good business in milking motors and water heaters.

Included in a recent shipment to Wellington were seven large transformers, manufactured by Metropolitan-Vickers Ltd., of England, for the Waikaremoana hydro-electric development. Each one is 15 feet in height and weighs 18 tons, to which will be added about 9 tons due to the 2240 gallons of oil with which it will be filled.

The seven single-phase units, each 6666 kv.a. capacity, will form two 20,000 kv.a. three-phase banks with one spare. Their purpose will be to step up the generating station voltage from 11,000 to 110,000 for transmission to Napier, where the power will link up with the Mangahao supply system.

These are the largest transformers yet landed in New Zealand, the record being held previously by the 500 kv.a. single-phase units erected at Penrose substation. They will have to take second place later on, however, for tenders are now being called by the Public Works Department for four single-phase units of 10,000 kv.a. each for Penrose.

Struck Oil.

According to cabled reports an "oil gusher" has been struck by the Turkish Petroleum Co. at Kirkuk, in Iraq. The outflow is said to be at the rate of seven thousand tons a day, and at latest reports it had been found impossible to stop the flow. Around the bore are gullies and depressions which are fast being filled up with crude oil, and the presence of large quantities of gas has compelled most of the employees to leave the workings.

Iraq is an Arab kingdom including Mesopotamia stretching from the head of the Persian Gulf to beyond Mosul where it touches Turkey in Asia. The Anglo-Persian and Royal Dutch groups are said to be interested in the Turkish Petroleum Co., the only individual shareholder being the son of an Armenian merchant who became a naturalised British subject and is reputed to be worth millions of money.

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Subscription—10/- per annum.

For 30/- per Annum we will supply (in addition to above) The Ironmonger (London), weekly, and a copy of The Ironmonger Diary. All Post Free. Single copies 1/- each. Subscriptions payable in advance.

Advertisers will kindly note that all alterations to Advertisements should reach us by the 25th of the month.

Correction.

In our last issue it was stated that Mr. Charles F. Young, of Sydney, represented in Australia Jones & Shipman Ltd., of Leicester, England. This was an error which we regret and which we hasten to overtake with this correction. Mr. Young has no connection with the firm mentioned.

Protective Paint for Pipe Joints.

The General Electric Co., of Bridgeport, Conn., U.S.A., are marketing an improved paint for sealing joints against oil, water, or gas leaks. The product is known as G.E. No. 880 red protective paint. It can be used for many purposes where red or white lead is ordinarily employed.

The paint, which is dark red in colour, requires no priming, and can be applied by brushing or dipping. Denatured alcohol is used as a thinning agent. It dries rapidly and produces a hard, smooth, glossy film which is easily cleaned and which prevents excessive collection of dirt and conducting material. When used with electrical apparatus, surface leakage and subsequent carbonisation of the surface is decreased.

The paint was devised particularly for use in the manufacture of fuel oil burners. It also has application for plumbing work, chemical plants, and various other purposes.

Foreign Exchanges.

Foreign rates of exchange in London for cable transfer on the centres and dates indicated, compare as follows:—

Par.	—	—	Nov. 21	Nov. 24	Nov. 28	Dec. 5
4.866	New York	Dols. to £	4.87½	4.87 11/16	4.87 11/16	4.88 3/16
4.866	Montreal ..	Dols. to £	4.86 11/16	4.86 11/16	4.87 11/16	4.88 1/4
25.225	Paris	Frcs. to £	124.00	124.03	124.02	124.00
35.000	Brussels ..	Bels. to £	34.94	34.94	34.91	34.89
25.225	Rome	Lire to £	89.67	89.55	89.67	90 00
12.107	Amsterdam	Florin to £	12.07	12.07⅜	12.07½	12.07½
12.107	Batavia ..	Gul. to £	12.07⅜	12.07⅜	12.08⅜	12.08½
18.159	Stockholm	Kron. to £	18.10	18.10	18.10	18.08
18.159	Oslo	Kron. to £	18.36	18.35	18.34	18.34
18.159	Copenhagen	Kron. to £	18.19	18.19	18.20	18.20
20.43	Berlin.. ..	Gmks. to £	20.43	20.42	20.43	20.42
24	Calcutta ..	Pen. to rup.	18	18	18	18 1/16
24.58	Yokohama	Pen. to yen	22 11/16	22 9/16	22⅝	22⅝
*	Hongkong	Pen to dol.	24⅜	24½	24 3/16	24½

* Par depends on rise and fall in price of Silver.

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Taps and Reamers with Detachable Pilot Screws.

The W. L. Brubaker & Die Co., of 50 Church St., New York, N.Y., U.S.A., are marketing a line of flexible stay-bolt taps and reamers with removable pilot screws. Instead of making the pilot screw a standard part of the tool, these devices are made with a threaded hole in which is inserted an unhardened adaptor stud with its outer end threaded with a standard pipe thread for use with the usual extension.

Several advantages are claimed for this design. The unhardened pilot screws are not brittle and are consequently less likely to break. In case of breakage or stripping of thread, they are easily replaceable, thus prolonging the life of the tool. The same tools can be used with an extension having either an inside or outside thread.

Special Vee Belting.

Cork's Spring Clip Chain Belt Co., of Bexley-Leath, England, offer a special Vee belt for use in the driving of fans, dynamos, motor-cycles and such.

The belt consists of a standard cycle or detachable link chain, with spring clips, in which are inserted compressed leather pads tapered to 28 degrees. These are sprung over the chain and secured by their own elasticity to the projecting ends of the chain pins. The leather pads, it is claimed, are usually subjected to a pressure six or eight times their normal working load; they provide the frictional grip on the pulleys. A wrench is provided for removing the spring clips from the chain should this be necessary. The chain can be run up to 7,000 feet per min.; is non-stretching and non-slipping. Noise is reduced and the belts are suitable for short centre drives.

These belts are obtainable in a range of standard widths from 7/16 in. to 1⅛ in.

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Editorial

Direct Selling.

In two overseas publications now before us—"The Hardware Trade Journal" of Great Britain, and "Hardware Age" of the United States—the vexed question of direct selling comes under discussion.

The British paper expects that "with the development of those ideas which align mass producion with mass distribution" the problem will be accentuated. It is going past the retailer with which this journal specially deals. And while maintaining that many manufacturers are not giving retailers a fair chance, the writer admits that retailers themselves are partly to blame for this questionable state of things. "The managing director of a lighting and heating appliance firm is at present in a state of exasperation with the retailer, and told a representative of this journal that unless traders respond more cordially to his efforts to help them sell his company's products he will be reluctantly compelled to go direct to the public. He is sorry to have to make this statement, but the abject apathy the trade has shown to his efforts to assist was such that he was able to quote a number of examples where the firm had sold its products to private individuals inquiring direct although, in some instances, they lived only a few doors from the local ironmonger, who had only interested himself in applying for the credit commission note when the facts were pointed out to him. He had also a great many cases of the firm's travellers asking for samples to be shown and being refused by ironmongers who had pocketed the commission on sales made direct from the head office. It is such glaring cases as these, he says, which has turned his attention to going entirely to the public and cutting out the trade altogether, much as he regretted the necessity."

Turning to the American paper, we find debated a different aspect of the same problem. Here it is a question of the manufacturer selling to the "jobber" or wholesale merchant and to the retailer at one and the same time. He runs with the hares and hunts with the hounds. For that sort of thing a trade contributor maintained there is neither excuse nor justification. It is bad economically and bad ethically. He warns manufacturers that it won't do. "Self-respecting jobbers are not inclined any longer to tolerate competition, be it fair or unfair competition, from the manufacturer from whom they buy."

Following up this contribution came another, a searching examination of the whole question from a member of the New York bar, a man who has had exceptional opportunities of studying this subject of the distribution of commodities. He quotes cases where the American courts have upheld the rights of a company to protect their wholesale customers by giving them a more favourable discount than they gave to retailers even when the latter bought in wholesale quantities. In one such judgment the following sentences appear:—"The value of 'old-line wholesalers' in the scheme of distribution of manufacturers is an economic fact long established. They constitute, in substance, the salesmen of the manufacturer. They gather together under one roof the products of many manufacturers and hold in readiness in their warehouses these countless products for prompt and ready distribution in small quantities to the retailer. By closer acquaintanceship derived from propinquity to their retail customers, they are better able to judge of the financial credit of the latter than the more distant manufacturer. If these wholesalers were eliminated, the manufacturer in most lines of industry would be confronted with the need of making direct deliveries to countless customers, at great distances, in relatively small quantities, and without adequate opportunity of determining the credit standing of such customers. It seems fair to say that such an undertaking would be impossible. The wholesaler now fills this function to the satisfaction of the manufacturer and of by far the greater number of retailers in this country." Similar opinions regarding functions of the wholesaler are quoted in the article from representative commercial bodies. These the writer holds support his contention that except in the automobile industry and others like it where the articles dealt in are few in number and in certain other industries where delivery is made in large bulk quantities, the wholesaler is an indispensable link in the trade chain.

"Upon the basis of these arguments it seems unanswerably true that the wholesaler performs functions which are indispensably necessary, so that if the wholesaler were eliminated in the industries which have been mentioned, the result would be the utter subversion and demoralisation of such industries, with resultant damage not only to the welfare of the industry affected—not only to the welfare of the trade and commerce of this country—not only to the localities in whose prosperity the wholesaler is an important factor; but even to the ultimate consumer, for he would unquestionably obtain his required necessities with much greater difficulty and at a much higher price. The basis for this view is so sound that students of the subject have never found the need of giving serious concern to establishing the proposition that wholesalers are economically indispensable. The difficulty arises when the question is advanced one step further. That is, when the question arises whether, upon the basis of the conceded necessity of the wholesaler, it is economically proper, expedient, advisable and ethical for manufacturers in many lines of industry to take full

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advantage of the existence of wholesalers in such lines of industry, by continuing to market their products through such wholesalers in cases where the manufacturer cannot economically and efficiently make direct sales to retailers; and at the same time, undermine the position of the wholesaler and take away from him the cream of his trade, by making indirect sales to chain stores, department stores, syndicate buyers, and mail order houses, because of the fact that these latter agencies are able to place orders in such large quantities as to make it just as easy for the manufacturer to fill such orders as if they had been given by wholesalers. Economists raise the question of the propriety and wisdom of manufacturers at one and the same time retaining to themselves the benefits of the distributing advantages afforded by wholesalers and taking away from the wholesaler the best part of his business. They ask whether it is economically wise and ethically right for the manufacturer—admittedly needing the wholesaler—to take away from the wholesaler a large, if not the largest and most profitable, part of his business and to leave him with the less advantageous and less profitable part of his business, merely because the manufacturer derives an immediate, temporary and purely selfish advantage by so doing. If the manufacturer claims that he does this upon sound and logical grounds, economically and ethically valid, then he should push the argument to a conclusion and stand openly and honestly for the elimination of the wholesaler. If he were thus candid and consistent, he would not thus indirectly undermine the position of the wholesaler, but would frankly stand for the total elimination of the wholesaler. But upon the plainest grounds of common sense he cannot and does not take this position; for if the wholesaler were eliminated the result would be, as the authorities have abundantly shown, the demoralisation if not the ruin of the manufacturer's business."

Tariff Revision in Australia

On November 24 the Commonwealth Minister for Trade and Customs (Mr. H. E. Pratten) brought forward certain resolutions for the revision of the tariff on goods imported into Australia. The changes proposed took immediate effect, with the exception of a few items where the operation of the new duties is deferred. Altogether the alterations cover 138 items and sub-items. Of these the reductions of duty number 24, while the increases on goods of both British and foreign origin run to 23 and on goods of foreign origin only another 28. The rectification of anomalies are ten in number and in 53 cases increased preference is given to products of the United Kingdom.

In framing these proposals, said the Minister, the Government had been guided by three main principles;—

"(a) The reduction or abolition of duty on some popular and revenue-producing items in everyday use.

"(b) A further measure of Protection to many Australian industries, some of a national character, which in the opinion of the Government must be preserved and developed.

"(c) The expansion and extension of the policy of preference to British trade in this market as an earnest of the Government's desire to help towards a well-balanced Imperial economic unity."

Mr. Pratten went on to say that the revisions were not expected nor intended to secure any increase of Customs revenue. The increases and decreases would about balance each other. On the British side the increased preferences should ultimately give the manufacturers of the Mother Country another £1,500,000 yearly of Australian imports. The proposals had in view the establishment in Australia of important new industries, displacing to a large extent certain goods now imported from abroad. Among the deferred duties was the item pipes and tubes, the local manufacture of which it was desired to encourage. But before any of these duties took effect a report and recommendation would have to be received from the Tariff Board. The wish was to meet the needs of protection as the industry developed.

The increases in duty on goods of both British and foreign origin include linoleums (deferred duty), bar iron, iron and steel pipes (deferred duty), rails (50 lb. and over), rolled iron beams, storage batteries for motor cars, aluminium kettles and cooking utensils, mortice lock sets, gramophone records and kit bag frames. Increases on goods of foreign origin only include wire (of various gauges), hoop iron, rails (less than 50 lb.), fish plates, tie plates, and rods, barbed wire, wire netting, wire for the manufacture of barbed wire, aluminium ware, and enamelled ware, kitchen ware, headlights, Oregon timber (undressed), doors, and motor chasses.

Decreases cover, among other things, hand food mincers, electric fans, chemicals for fire extinguishers, Oregon timber for underground mining purposes, dictating machines, school slates, motor cycle parts, horns and other warning devices, motor cycles, carpet sweepers, panchromatic plates, clinometers and prismatic compases, antiques, cutlery, kettles (cast iron), seltzogenes and combs, the last four items being decreases from the United Kingdom only and not applying all round as do the others.

Picking out those items which are of more or less direct interest to hardware and machinery dealers, we show first the new or proposed duties and set against these (in brackets) the old duties of the 1921-26 tariff. In most cases three positions are shown, under each of these being (1) the British preferential tariff, (2) the intermediate tariff, and (3) the general tariff. As between the old and the new the wording is not quite the same in some cases.

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Item 113—(A) Carpets, Carpeting, Floor Cloths, n.e.i., Floor and Carriage Mats of any textile material except coir; and Floor Rugs and Coverings not being of rubber and not being Furs or other Skins or Carpet Felt, Under-carpet Felt, or Carpet Felt Paper; saddlebag in the piece or otherwise; ad val. 10 per cent., 15 per cent., 25 per cent. (B) Carpet Felt and Under-carpet Felt, ad val. 20 per cent., 30 per cent., 35 per cent. (C) (1) Plain Linoleums and Floor Coverings having a similar surface, not printed or inlaid, ad val. 10 per cent., 15 per cent., 25 per cent. And on and after 1st April, 1928—(C) (1) Plain Linoleums and Floor Coverings having a similar surface, not printed or inlaid, ad val. 20 per cent., 25 per cent., 35 per cent. On and after 25th November, 1927—(C) (2) Linoleums and Floor Coverings having a similar surface, n.e.i., ad val. 10 per cent., 15 per cent., 25 per cent. And on and after 1st January, 1929—(C) (2) Linoleums and Floor Coverings having a similar surface, n.e.i., ad val. 20 per cent., 25 per cent., 35 per cent. (10 per cent., 15 per cent., and 25 per cent. for A., the same for B and 20 per cent., 30 per cent., and 35 per cent. for C.).

Item 136—(c) (1) Bar, Rod, other than Wire Rod in coils, Angle, Tee; Bars of fancy pattern, in the state in which they leave the rollers, per ton, 70/-, 100/-, 120/-; (2) Wire Rod in coils, per ton, 44/-, 65/-, 80/-, (44/-, 65/-, and 80/-).

Item 136—(e) (1) Wire of No. 15 or finer gauge (Imperial standard wire gauge) ad val., 20 per cent., 35 per cent., 45 per cent.; (2) Wire, fencing, of gauges Nos. 8 to 14 (Imperial standard wire gauge), both gauges inclusive, for use only as fencing wire without further manufacture, or for such manufacturing purposes as may be prescribed by Departmental by-laws, per ton, free, 100/-, 120/-; (3) Wire, other, per ton, 52/-, 100/-, 120/-. (20, 30, and 35 per cent. for wire of No. 16 or finer gauge; free, 5 and 10 per cent. for fencing wire, gauges 8 to 14; and 52/-, 72/6, and 90/- per ton for other wire).

Item 136—(f) (1) Hoop, ⅛ of an inch in thickness, in widths from 1 inch to 2 inches, both widths inclusive, per ton, 70/-, 110/-, 120/-; (2) Hoop, n.e.i., ad val., free, 5 per cent., 10 per cent., and on and after 1st April, 1928; (2) Hoop, n.e.i., per ton, 70/-, 110/-, 120/-; (free, 5 and 10 per cent., and deferred duties of 70/-, 90/-, and 95/-, per ton brought into operation on 30th September, 1923).

Item 152—(a) Iron and Steel Tubes or Pipes (except riveted, cast, close-jointed or cycle tubes or pipes) not more than 3 inches internal diameter; Iron and Steel Boiler Tubes, ad val., free, 5 per cent., 10 per cent.; and on and after 1st January, 1929; 152—(a) As above, ad val., 40 per cent., 55 per cent., 60 per cent. (free, 5 and 10 per cent. and deferred duties 27½, 35 and 40 per cent.).

Item 154—(a) Rails weighing 50 lb. per yard and over, per ton, 50/-, 85/-, 100/-; (b) Rails weighing less than 50 lb. per yard, per ton, 45/-, 100/-, 125/-; (c) Fishplates, Tie Plates, and Rods, per ton, 48/-, 100/-, 125/-. (35/-, 60/-, and 75/- per ton for rails weighing 50 lb. and over, 45/-, 70/-, and 85/- for rails weighing less than 50 lb., and 48/-, 75/-, and 95/-, for fishplates, etc.).

Item 155—Rolled Iron or Steel Beams, Channels, Joists, Girders, Columns, Trough and Bridge Iron and Steel—(a) Not drilled or further manufactured, per ton, 70/-, 100/-, 125/-; (b) Drilled or further manufactured, per ton, 70/-, 100/-, 125/-; and ad val., 25 per cent., 30 per cent., 35 per cent. (48/-, 75/-, and 90/-, per ton for undrilled rolled iron, etc., and the same rates or 25, 30, and 35 per cent. for drilled material).

Item 157—Barbed wire, per ton, 68/-, 160/-, 180/-. (68/-, 85/-, and 105/-).

Item 158—Wire Netting, per ton, free, 170/-, 200/- (free, 5 per cent. and 10 per cent.).

Item 159—(a) Wire, n.e.i., also woven wire, measuring over 30 holes to the lineal inch, ad val., free, 5 per cent., 15 per cent.; (b) Wire, Iron and Steel, for use in the manufacture of Barbed Wire and Wire Netting, as prescribed by Departmental by-laws, per ton, 52/-, 100/-, 120/- (free 5 and 15 per cent. for A, and 52/-, 72/6, and 90/- per ton for B).

Item 164—Churns of all kinds; Cheese Presses; Dairy Coolers, ad val., 22½ per cent., 30 per cent., 35 per cent. (22½ per cent., 30 per cent. and 35 per cent.).

Item 175—Apparatus for the liquefaction of gases, but not including compressors suitable for refrigeration or ice-making, ad val., free, 10 per cent., 15 per cent. (Free, 5 per cent. and 10 per cent.).

Item 176—(g) Mechanical Hand Food Mincers and Choppers, suitable only for household use, ad val., free, 10 per cent., 20 per cent. (45, 55 and 60 per cent.).

Item 179—(d) (3) (a) Electric Fans of the type ordinarily used in offices and the household, ad val., free, 15 per cent., 25 per cent; (b) Electric Household Floor Polishers, Household Ironing Machines, Human Hair Dryers, ad val., free 15 per cent., 25 per cent. (c) Electric Household Dish Washing Machines, ad val., free, 15 per cent., 25 per cent. And on and after 1st July, 1928, (c) Electric Household Dish Washing Machines, ad val., 45 per cent., 55 per cent., 60 per cent. (27½, 35, and 40 per cent., or 45, 55 and 60 per cent., according to classification).

Item 180—(a) Telephone, Telephone Switchboards, Telephone Distributing Boards, and Appliances, ad val., free, 15 per cent., 20 per cent. (Free, 5 per cent. and 10 per cent.)

Item 180—(e) Wireless Receiving Sets; Headphones, ad val., 35 per cent., 50 per cent., 55 per cent. (35 per cent., 50 per cent., and 55 per cent.).

Item 180—(g) Storage Batteries suitable for use in Motor cars otherwise than for propulsion purposes, ad val., 35 per cent., 47½ per cent., 60 per cent. (27½, 35 and 40 per cent.).

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Item 197—(b) Cutlery, Spoons and Forks, n.e.i., and Knife Sharpeners, ad val., free, 15 per cent., 25 per cent. And on and after 1st April, 1928.

Item 197—(b), Cutlery, Spoons and Forks, n.e.i., and Knife Sharpeners, ad. val., 20 per cent., 25 per cent., 35 per cent. (10, 20 and 25 per cent., and deferred duties 20, 25 and 35 per cent.).

Item 204—(a) Kettles and Cooking Utensils (but not including stoves) of Cast Iron (tinned or plain), ad. val., free, 15 per cent., 25 per cent. (b) Aluminiumware and Enamelled ware, n.e.i., but not including Stoves and Baths, ad val., 35 per cent., 45 per cent., 60 per cent. (15, 20 and 25 per cent., 25, 30 and 35 per cent., and 35, 40 and 45 per cent., according to classification).

Item 208—(c) Single Lever Mortice Lock Sets, ad val., 45 per cent., 50 per cent., 60 per cent. (35, 40 and 45 per cent.).

Item 208—(d) Kitchenware, viz., Asbestos Mats, Metal Soap Savers, Metal Soap Racks, Metal Stove Toasters, Metal Tea, Coffee and Gravy Strainers, and Metal Potato Mashers, ad val., 35 per cent., 50 per cent., and 60 per cent. (35, 40 and 45 per cent.).

Item 242—Glass, viz., (e) (1) Bent, Bevelled, Heraldic, Sandblasted, Enamelled, Embossed, Etched, Silvered, Brilliant Cut, Corners Cut, Bevelled or Engraved; Prisms, and all Glass framed with metal, n.e.i., ad val., 25 per cent., 30 per cent., 35 per cent; (2) Hoodlights for Motor Cars, ad val., 25 per cent., 30 per cent., 40 per cent.; or each 2/-, 2/6 and 3/-, whichever rate returns the highest duty. (25, 30 and 35 per cent.).

Item 243—(a) Glass, n.e.i., ad val., 15 per cent., 20 per cent., 25 per cent; (b) Seltzogenes and accessories and Syphon Bottles, ad val., free, 15 per cent., 25 per cent. (15, 20 and 25 per cent.).

Item 278—(d) Chemicals for use in Fire Extinguishers, as prescribed by Departmental by-laws, ad val., free, 10 per cent., 20 per cent. (25, 35 and 45 per cent.).

Item 291—(f) Timber, undressed, in sizes of 12 in. x 6 in. (or its equivalent) and over:—(1) Oregon (Pseudosuga Douglasii) per 100 super feet, 8/-, 8/-, 8/-; (2) Oregon (Pseudosuga Douglasii) for use underground for mining purposes, as prescribed by Departmental by-laws, free, free, free; (3) n.e.i., per 100 super feet, 3/-, 3/-, 4/-. (3/-, 3/-, and 4/-).

Item 291—(g) Timber, undressed, in sizes of 7 in. x 2½ in. (or its equivalent) and upwards, and less than 12 in. x 6 in. (or its equivalent):—(1) Oregon (Pseudosuga Douglasii) per 100 super feet, 9/6, 9/6, 9/6; (2) n.e.i., per 100 super feet, 3/-, 4/6, 5/6. (3/-, 4/6, and 5/6).

Item 291—(h) Timber, undressed, in sizes less than 7 in. x 2½ in. (or its equivalent):—(1) Oregon (Pseudosuga Douglasii), per 100, super feet, 11/-, 11/-, 11/-; (2) n.e.i., per 100 super. feet, 5/-, 6/-, 7/. (5/-, 6/-, and 7/-).

Item 293—(c) Doors of Wood, including Fly Doors, each 8/6, 8/6, 8/6. 1921-1926.—Item 293—(4/6, 4/6 and 4/6; 6/-, 6/-, and 6/-; and 8/6, 8/6 and 8/6, according to size).

Item 308—Combs (toilet) and Shaving Sets, not included under item 376 (a), ad val., free, 15 per cent., 20 per cent. (5, 15 and 20 per cent.).

Item 321—Spectacles and Spectacle Frames, Magnifying and Reading Glasses—(a) Wholly or partly of gold or silver (not being included in sub-item); (b), ad val., free, 15 per cent., 25 per cent. (30, 35 and 40 per cent.).

Item 348—(a) School Slates, ad val., free, 10 per cent., 20 per cent.; (b) Drawing Slates, Slate Pencils, ad val., free, 10 per cent., 20 per cent. (15, 25 and 30 per cent. for A, and free, 10 and 15 per cent. for B).

Item 352—(a) (1) Cycle and Sidecar Parts, plated, brazed, enamelled, or permanently joined, n.e.i. (including rims but not including parts of leather or rubber), ad val., 20 per cent., 20 per cent., 30 per cent.; (2) Motor Cycle Parts, plated, brazed, enamelled, or permanently joined, n.e.i. (including rims, but not including parts of leather or rubber). Cycle, Motor Cycle and Sidecar accessories, n.e.i., and parts thereof (except of leather or rubber), including Steel Trouser Clips, Steel Toe Clips and Bands, Parcel Carriers, and Bells; Cycle Saddles and Saddle Covers; inflators of all kinds for pneumatic tyres, Inflator Clips and connections, ad val., free, 15 per cent., 25 per cent. (20, 20 and 30 per cent.).

Item 352—(c) Horns, Warning Devices, n.e.i., Reflectors, and Reflex Rear Lights for use on bicycles and motor or other vehicles, ad val., free, 15 per cent., 25 per cent. (20, 20, and 30 per cent.).

Item 354—(a) Sidecars, Motor Tricycles, and similar vehicles, n.e.i., and Frames thereof, whether partly or wholly finished, each £10, £11, £12, or ad. val, 30 per cent., 35 per cent., 40 per cent., whichever rates returns the higher duty; (b) Motor Cycles and Frames thereof, whether wholly or partly finished, ad val., free, 15 per cent., 20 per cent., 20 per cent. (£10, £11 and £12, or 30, 35 and 40 per cent. for A, and 20, 25 and 30 per cent. for B).

Item 359 — (1) (4) Chassis, but not including Rubber Tyres or Storage Batteries—(a) Unassembled, ad val., free 12½ per cent., 17½ per cent.; (b) Assembled, ad val., 5 per cent., 20 per cent., 25 per cent. (free, 7½ per cent. and 12½ per cent., for A, and 5, 12½, and 17½ per cent. for B).

Item 376—(f) Kit Bag Frames, ad val., 45 per cent., 50 per cent., 65 per cent. (35, 40, and 50 per cent.).

Item 380—(a) (1) Brooms, Whisks, and Mops, ad val., 30 per cent., 35 per cent., 40 per cent.; (2) Carpet Sweepers, ad val., free, 15 per cent., 25 per cent., 25 per cent. (30, 35 and 40 per cent.).

Item 418—(c) (2) Clinometers and Prismatic Compases, ad val., free, free, 20 per cent. (30, 35 and 40 per cent.).

Item 427—(d) Antiques produced at least 100 years prior to the date of importation as prescribed by Departmental by-laws—free, free, free (new item).

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Monel Metal

Although in America monel metal has been used for some years, Australians know comparatively little about it. To the average person, indeed, it is almost unknown, while a great many metal workers have never handled it, in spite of the fact that for many purposes it should be extremely useful.

Monel metal is described by the International Nickel Co., of New York, who produce it, as "a technically controlled nickel-copper alloy of high nickel content." It has about 67 per cent. nickel, while "the smaller quantity of copper is in solid solution with the nickel," obviating any danger of contamination of foodstuffs.

These qualities make the metal valuable for kitchen equipment, and for this purpose it is largely used in America. Hotels and other important catering establishments in that country are fitted, to a large degree, with appliances made of monel metal. Such substances as salt, acids and pickling solutions, which quickly cause corrosion when in contact with most metals, leave this product entirely unaffected, although used for many years under these conditions. For this reason many factories which handle foodstuffs equip their cooking and canning plants exclusively with monel metal. Armour & Co., who treat salt and acid foods extensively, may be mentioned as an example. Practically all their tables, vats and other utensils which come in contact with their meat preparations are of this material.

For such purposes it has at present no serious rival. Glass is liable to breakage, while wooden vessels are subject to opening seams and crevices. Galvanised iron will not resist for long the corroding effects of salt solutions, and is otherwise far from cleanly in use. Monel metal is not only impervious to chemical action, but is bright and "silvery" in appearance, and requires but little cleaning and polishing. Not the least of its advantages in large plants and kitchens is the saving of labour in this direction, soap and water being usually sufficient to maintain it in perfect cleanliness.

One of the few manufacturing firms in Australia who have had experience in the use of monel metal are Galliers & Klaerr, of St. Kilda, Melbourne. For some years they have supplied kitchen equipment to large institutions and hotels, as well as the huge cooking ranges and hot services used on the dining cars of the Victorian and South Australian railways. It has become necessary to use this metal for hot plates, tables and utensils of many kinds as representing the "last word" in this class of equipment. They have in this way gained considerable experience in both casting and stamping monel metal, and regard it very highly. A recent undertaking by the firm involving a large quantity of the material was the installation of cooking apparatus for the London Stores Cafe, in Melbourne. An inspection of this model kitchen, which is on a large scale, shows the many uses for which monel metal is eminently suited. Table tops, hot plates and cabinets, as well as all cooking utensils give convincing proof of its value. The manager of the cafe reports that the various appliances have given complete satisfaction.

The St. Kilda firm are at present engaged in making stewpans of the metal, which are pressed from one piece. In the supply of kitchen articles many very large vessels have been similarly worked. The apearance of these appliances is excellent. Naturally of bright colour throughout, the metal is capable of retaining a high polish. The slightest rubbing produces a brilliant surface. Mr. J. Klaerr, who is in charge of the works, explained that some experience is necessary for the handling of the substance, which is different in its composition from other metals.

Monel metal can be used for a hundred purposes. Besides those stated, hospital equipment, soda fountains, refrigerators and many other things are constantly made in America from this nickel product. The metal in its raw state is supplied through H. Perks & Co., of 31 Queen-street, Melbourne, who are agents for Victoria.

Steel Manufacturing Process.

Mr. Lindley Duffield, a London engineer, has invented a process for manufacturing high-purity steel at about £3/10/- a ton. This is approximately one-half the price of ordinary steel, which contains chemical impurities. Experts who have examined the process believe that it will have a revolutionary effect on the iron and steel industries of the world. One of the biggest corporations in America is contemplating the purchase of the American rights for some £500,000. The well-known scientist, Dr. F. Mollwo Perkin, C.B.E., F.I.C., F.C.S., M.Inst.P.Tech., reports: "I am of the opinion that in this process we have a revolution somewhat similar to the Bessemer process for the production of steel." The managing director of Messrs. Baldwin's Limited, of Port Talbot, has checked Mr. Duffield's calculations for his process, and is satisfied that they are correct. If the claims of the Duffield process are made good, high-purity steel will become comparatively cheap, and the blast furnace, with its products of impure iron, will disappear. The essential difference between pure and impure iron and steel is that the latter is liable to be destroyed by rust, whereas the former is not."—"Industrial and Commercial South Africa."

Chinese Steelyard Making.

Steelyard makers of Nanking are popular because of their good workmanship. The steelyard is universally used by Chinese merchants and private households as a means of weighing articles. The device consists of a graduated lever made of some species of hardwood and a counterpoise of cast iron. The article to be weighed is suspended at one end of the lever by an iron hook, while the counterpoise slides back and forth over the graduated lever to produce a balance. The lever of Nanking steelyards is made of redwood, the raw material being obtained from the local furniture shops, where large quantities of discarded redwood sticks are always obtainable. A steelyard of the largest scale is capable of weighing an article of over 200 pounds. It takes a man three days to produce and is sold at about 8 dollars (say 20/-). Nanking steelyard makers are highly skilled in the trade. The article they produce is very accurate and sensitive. Although weight has not yet been standardised officially, the steelyards produced by the Nanking makers are always of a scale which is popularly accepted as standard. There may be dishonest steelyard makers in other parts of China, who produce steelyards of inaccurate weight to the order of their equally dishonest customers, but it is not so with the Nanking makers, because the latter are constantly under police or official supervision and liable to punishment. Nanking steelyard makers therefore have a good reputation for their manufacture. There are about 15 or 16 steelyard makers in Nanking, each employing from 15 to 20 hands. Their total yearly output is valued at 150,000 dollars (about £15,000). The highest price for a steelyard with the counterpoise is 8 dollars and the lowest price, 90 cents. The bulk of the steelyards is exported to Shantung and the Lower Yangtze provinces although quite a large number are sold on the local market, many to tourists or visitors to Nanking.

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Inquiry Column

TRADE INQUIRIES

During the month we have supplied answers to the inquiries indicated below. Firms with whom we have not already communicated who hold any agency connection with the firms, or handle any of the lines mentioned in this section, are invited to furnish us with particulars so that our lists may be complete.

Information Supplied.

"Sanitas."—Name and address of agents supplied.

Nicholson File Co.—Name and address of agent supplied.

Highgate Tool Co.—Name and address of agents supplied.

Price's Patent Candle Co.—Name and address of agent supplied.

"New-Way" Petrol Engine.—Name and address of agents supplied.

Casks.—Names and addresses of manufacturers in Sydney supplied.

"Florence" Oil Ranges.—Name and address of representatives supplied.

J. Blakeborough & Sons Ltd. (valves).—Name and address of agents supplied.

Nicholson File Co., Providence, R.I., U.S.A.—Name and address of agent supplied.

Stoves and Ranges.—Names and addresses of makers in Melbourne supplied.

"Pyrex" Ovenware.—Name and address of Australian representative supplied.

Wire Frames.—Names and addresses of Australian manufacturers supplied.

Boiler Disincrustant.—Names and addresses of Melbourne manufacturers supplied.

Wallingford Mfg. Co., Wallingford, Vt., U.S.A.—Name and address of agent supplied.

"Armco" Steel Products.—Names and addresses of manufacturers and agents supplied.

Turner & Seymour Mfg. Co., Torrington, Conn., U.S.A.—Name and address of agents supplied.

Joseph Waine Ltd., Wolverhampton, England (heel tips, etc.).—Name and address of agent supplied.

Steel Tips for heels and toes of footwear.—Name and address of manufacturers in Melbourne supplied.

Landon P. Smith Inc., Irvington, N.J., U.S.A. ("Red Devil" glass-cutters).—Name and address of agents supplied.

Crescent Tool Co., Jamestown, N.Y., U.S.A. ("Red Devil" tools and pliers).—Name and address of agents supplied.

Gilchrist Co., Newark, N.J., U.S.A. (automatic ice cream servers).—Name and address of firm in possession of catalogues and prices supplied.

Information Wanted.

American Tripoli Co.—Name and address of agent wanted.

"Holdfast" Wire Strainer.—Name and address of maker wanted.

Stalker Drill Co., Sheffield, England.—Name and address of representative wanted.

Ransome Machinery Co. (1920) Ltd., London.—Name and address of agent wanted.

Hardie Manufacturing Co., Hudson, Mich., U.S.A.—Name and address of agent wanted.

Gilchrist Co., Newark, N.J., U.S.A. (automatic ice cream servers).—Name and address of agent wanted.

North & Judd Mfg. Co., New Britain, Conn., U.S.A. ("Anchor" brand upholsterers' tacks).—Name and address of agent wanted.

LEGAL INQUIRIES.

Both in Melbourne and Sydney we have made arrangements with lawyers of good standing in their profession to answer through this journal any legal queries addressed to us. Readers who meet with difficulties are requested to state these as clearly as possible.

Seizing Hire Purchase Goods.

One of our subscribers sold some furniture on the hire purchase system. The family concerned "cleared out," leaving £19/8/10 owing to our subscriber and £4/10/- owing for rent. Now the landlord has seized the furniture in satisfaction of his claim. What remedy has our subscriber?

A. If the goods were on the rented premises the landlord had the right to distrain on them, and the subscriber should pay the rent and take back the goods.

Landlord and Tenant.

Some ten months ago a Victorian firm signed two copies of a lease covering a twelve months' tenancy. Both copies were taken away and their copy has not been placed in their hands. The leases were unstamped at the time and they have now been charged £6/6/-, which they consider excessive. What is the legal position?

A.—The tenant is liable for the costs of the lease. We could not say whether the amount claimed is excessive or not without seeing the lease and discovering the amount of the stamp duty.

Black List.

An association of traders formed for the purpose of mutual protection against trade evils, determines to keep a list of all persons who are bad payers. For this purpose each member of the association hands in to the secretary the name and address of every person whom he discovers to be lax in paying his accounts. The secretary then prints these names in book form, marks it "private and confidential," and delivers the list to the members. The list bears no indication of the meaning of the column of names and addresses. Is there anything illegal in this black list? If so, is there any way in which a similar scheme could be put into operation without offending against the law?

A.—We see nothing actionable in the list as published provided it is issued only to subscribers, and that no untrue statement is published.

Publishing Black Lists.

A correspondent (29/48) asks the following threefold question:—(a) Would it be safe for an association to publish a list of "bad marks" for circulation among members without exposing the publishers to legal liabilities by any person whose name appears in such list; (b) would marking the list "confidential" or "for private circulation" be sufficient to preclude action at law in case the list came into the possession of a listed non-member; (c) would it be practicable to appoint numerous agents, whose duty it would be to keep the list on view for bona fide members?

A.—(a) No; (b) no; (c) we don't think so. [Note.—It should be observed that the question refers to the publishing of a list, and the answer does not necessarily cover the keeping of a private ledger.—Editor.]

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Sundry Credits

By J. Knibb.

A new "life" of Benjamin Franklin, "the first civilised American," is announced. A remarkable man was Franklin, or "Poor Richard" as he called himself in some of his writings. Printer and philosopher, inventor and ambassador, first postmaster-general of the United States, and "first American world-man," lover of books and women and good things generally, with strange inconsistencies of character and conduct, the story of Franklin is full of sparkle. His first job was with an uncle in a cutlery shop in Boston, and among his inventions were a stove and a street lamp.

Poor Richard.

* * * *

At a dairy show in London recently an interesting novelty was a machine for plucking fowls. Suction is the principle employed in this case, the feathers being drawn into the machine by the agency of a fan and then gripped and pulled clean out. Once free they are caught in a collecting bag. The machine makes 600 revolutions a minute, and there is no danger of tearing the flesh while removing the feathers. So it is said. The body is stripped clean in less than a minute without the least injury to the bird or inconvenience to the bystander. Who said that inventive genius had exhausted itself?

Plucked!

* * * *

No longer is the man on the land the man on horseback but the man in the car. In growing numbers the Australian farmer holds the wheel instead of the bridle and puts his trust in petrol rather than in equine sheen and strength. All over the country it is so. In the Parliament of Western Australia recently, discussion turned on a closer settlement district, and this is what an honourable member said:—"At the township of Carnamah four years ago there were only four motor cars whereas to-day there are two hundred and fifty." Asked if they were all paid for, the speaker refused to go so far, but expressed his belief that the security was good.

Mechanical Mounts.

* * * *

Some citizens of Sydney are asking this question in connection with the big bridge which is to span the Harbour, and which is rapidly taking shape under their eyes. The bridge itself is not the subject of "waste," but the towers or pylons at either end of the great arch. It is a fact that the firm who received the contract offered to build a similar bridge without towers for £717,906 less money—£3,499,906 as compared with £4,217,721. Consequently it is assumed that the towers have no structural value, and it is roundly asserted that they will have no ornamental value either. They will add neither to its strength nor to its appearance, say these latter-day or eleventh-hour critics. If that is really the position they are quite right in protesting against such waste of money, for waste it would be and nothing else. But is that the position?

Why this Waste?

* * * *

"Fules an' bairns should never see half-dune wark" say the Scottish people—when they speak in their ain tongue. Which means that the imbecile and immature cannot be expected to appreciate an article until it is finished. Possessing neither patience nor vision—mental vision I mean—they had better keep out of the way until the thing is complete. Not being a Scotsman, not so far as I know, Dr. Bradfield, the designer of the bridge, does not answer his critics in Doric. But his English is quite as blunt and uncomplimentary. People who talk in this way, he says, do not know what they are talking about. The pylons have a structural value, and he is prepared to leave the decision of their ornamental value to those who see the big structure completed. Then, I venture to say, the effect of the towers will be generally recognised.

Fules an' Bairns.

* * * *

The number of business firms prepared to accept cheques from strangers is really surprising. They not only take such cheques for presenters with more or less goods supplied, but "oblige" the money by way of change. Usually it is the "change" these fellows are after, for frequently when the cheque comes back marked "no account" or something like that the goods are recoverable. They are at the railway station or they haven't left the store. But the "difference" is "gone for ever" as the song says. In Melbourne recently several business firms were victimised in just this way, some of them paying pretty heavily for their mistaken faith in frail humanity. About the same time a New Zealand firm gave a man who spoke broken English fishing tackle worth £2/8/- and £4 2/- in cash for a cheque which proved worthless. In this case the culprit was brought into court, and the magistrate, in giving him a stiff sentence, said it was incredible that people should cash cheques presented in such a manner.

Cheque and Change.

* * * *

With the changes which time brings some things disappear altogether. But other things, threatened by the march of progress, hang on, somehow, and refuse to be set aside. Viewing the extent to which motor power is displacing the horse, many people assume that before long the racecourse will be the only place for him. I'm not so sure. In New York, I believe, horses are again to be seen at the wharves and warehouses because experience has convinced those concerned that in certain circumstances motor delivery is neither economical nor otherwise satisfactory. On the face of it, again, electricity ought to knock out coal gas. But it doesn't. Australian gas companies are paying dividends and in some cases increasing capital. Most of them are lighting fewer homes than they used to do, but on the other hand they are seeking and securing more business for cooking and power with the accessories for such services and the by-products like tar and sulphate of ammonia inseparable from the main industry.

Threatened Industries.

* * * *

The "Two Chairs" story has various forms and birthplaces. In an American paper Saunders Norvell appropriates it lock, stock and barrel. A "young salesman," himself obviously, was "on the road" for the first time. He was very proud of the business card he carried, a card with the firm's name in the centre and his own in the left-hand bottom corner. In one shop he found a retail dealer selling or trying to sell a stove to a difficult prospect, and after a time he "butted in" and presented his card. "All right, young man," said the dealer. "Take a chair over there. I will talk to you in a minute." But the sale hung fire and the minutes passed. The young salesman became impatient. Surely, he thought, the dealer did not notice the name on the card or he would leave this fool customer and attend to business! So rising from the chair, he walked up to the counter and handed the "knight" behind it another card. The dealer looked from him to the "scrap of paper." Then with a smile he said "Yes, sir; I read your first card. Now you have given me another. I invited you to take one chair. All right. You represent a great house. Take two chairs."

Take Two!

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Make the Advertising Pay

A Page of Hints and Helpful Criticism

Send Us Your Ads. ∴ Let Us Help Solve Your Problems.

The Heading and the Illustration

We reproduce here a striking advertisement for the well-known O'Cedar mops, which appeared in an American magazine, showing an excellent instance of the heading "pulling its own weight" with the illustration.



As in the scissors advertisement discussed in last month's column, note how naturally the eye travels, from the heading, down the illustration to the name block.

While it was a happy selling-idea to suggest that much stair climbing would be saved by the possession of two O'Cedars, we don't quite see why that need be so. In a well-managed house the mop would go upstairs but once in the day; the job done the mop would be returned to its cupboard along with the brooms, buckets, etc.; otherwise, why not have two of everything?

However, the idea probably sold many mops, and certainly would not unfavourably prejudice the sale of others.

The style and position of the heading in relation to the rest of the advertisement is of great importance. Obviously, it must be in harmony with the illustration. The type (or hand-drawn lettering) selected should be of sufficient contrast to be conspicuous and impressive without being garish. Of course, the size must be governed by the dimensions of the advertisement, but it is a common mistake to see small advertisements spoilt by the use of too small type for the headings; it is better to reduce the text to the minimum, if need be.

Get into the way of selecting short pithy headings. For instance,

1 for upstairs
1 for down

says "a whole mouthful," as some of our colloquial-tongued friends would put it.

Paradoxical as it may seem, the heading is not always placed at the top of an advertisement. It may be immediately below the illustration, or it may be placed to one side. Sometimes, in large advertisements — such as department store full-page ads.—it may be placed right through the centre; various small panels with sub-headings being arranged above and below it. Such is quite permissible, but generally speaking, it is best to avoid freak effects. A good maxim to follow is: "When in doubt —don't."

Obliquely placed headings are not good practice. In most cases any arrangement whereby the reader must turn or twist his eyes is not likely to be conducive to a maximum of buying-desire, even if he be bothered to read it at all.

At the present time there is quite a fashion in certain quarters to have eccentric lettering and twisted words at the head of advertisements, but how many of the readers "absorb" the message put forward? Such practices are only strivings after effect, and it is fairly safe to say that in most cases they are wasted effort. Moreover, a freak heading is apt to detract from the illustration instead of "pulling its full weight" with it!

The Foreigner on the Job

Is it that *monsieur* would care for a *soupcon* of lubricating oils? It is oh, so necessary that one lubricate the wheels of one's steel mills; But wait: Kerkoff has assembled the oils, the greases, the slushes *d'Afrique*. Assembled them in boxes, barrels and kegs, of a so simple and yet elegant design, that *Monsieur le* Superintendent, and his foreman *de la Factorie*, will say, "An oil superb!"

There is an oil for gadgets, delicately perfumed, made of the strong yet graceful fish—and an oil for cylinders alone, of a colour most subtle. Veritably a wealth of oils to choose from!

And, *Monsieur, et le* Overseer *de la Factorie, le* Manager *du* Works, a little secret—Kerkoff's secret—ah, but that would be telling, would it not, how we compound our so delightful lubricating oils?

Sprinkle them, *monsieur*, upon your trains, your factories, your engines, and learn the secret of their fascination. The lubricating oil of Kerkoff are not to be resisted, *mais mon? Ah, mais oui!*—"Hardware Age."

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Novelties and New Samples

Novelties and New Samples.

Mr. George H. S. Hoos, of Carson-place, 287a Little Collins-street, Melbourne, announces the receipt of a full sample range of tools from Wynn Timmins & Co. Ltd., of Birmingham. By the incoming mail steamer a similar complete range of hollow-ware is due from T. & C. Clark & Co., of Wolverhampton. These will be available to buyers at an early date.

Improved Step Ladder.

The Mote Patent Extension Ladder Co., of 1 Bligh-street, Sydney, are now producing an improved combination step and ladder. Instead of resting against the front portion as before, the style of the back section is now slightly lengthened and passes inside the main or front section. This prevents any "play" as it serves the purpose of a stiffener. A full range of miniature samples are being displayed at the above address.

Free Samples to Test Quality.

Colin Maxwell & Co., of 379 Kent-street, Sydney, have received a supply of "Good Line" nail bits attractively mounted on show cards. They will be supplied free of charge for the purpose of testing the quality and adaptability to Australian hardwoods. This is a genuine offer, as the manufacturer (Ewald Ahrem, Elberfeld, Germany), is prepared to stand by the decision of the user. Country clients can obtain trial samples from city wholesalers.

Accumulators and Batteries for Motor Cars.

Jones & Joseph Ltd., of 235-39 Clarence-street Sydney, are showing the "Three Star" accumulators, made in London. Among these are celluloid accumulators for radio batteries, fitted with special grease trap terminals to prevent rusting. These accumulators are very strongly made and have extra thick plates, and may be carried by a convenient handle attached.

A very wide range of car batteries is carried, it being claimed that there is a battery for every type of car on the market.

Brassfoundry.

At their showrooms, 352 Kent-street, Sydney, W. G. South & Cowan Ltd., are displaying samples from several makers of brassfoundry. From John Jewsbury & Co. Ltd., Birmingham, England, are such articles as corkscrews with animal tops, toasting forks, pokers, hearth brushes, door knockers, nut crackers, and paper knives, while from Adolph Knecht, Wurttemberg, Germany, come smokers' outfits, vases, fruit stands, with crystal centres, and clocks. Ash trays, vases, puff boxes, bells and cigarette boxes, highly decorated and coloured, bear the brand Kinco Brass, London.

Australian and Other.

Mr. D. R. Macdermid ,of Castlereagh House, Castlereagh-street, Sydney, has received from Tulloch's Phoenix Iron Works, at Rhodes, a fine sample range of shovels, garden trowels and handforks. The two latter tools are practically new, having but recently come into the hands of Mr. Macdermid, who is the Australasian representative. Constructed of high-grade steel, locally manufactured, they are very strong and should be able to withstand any amount of rough usage. They carry the same guarantee as is affixed to the "Griffin" shovel.

Tiles from the Campbell Tile Co., Stoke-on-Trent, are also being displayed, comprising coloured and whites, while the sizes vary.

Among other lines which this representative holds for N.S.W. are chamois leathers, of Australian origination, and various products of the Mount Lyell Chemical Works, Yarraville, Victoria.

A Combination Tool and a Door-Stop.

The Tweengrip Tool Co., 5 Dalley-street, Sydney, are displaying samples of a combination hammer. This novel tool, which is suitable as a hammer, screwdriver, nail puller, tin opener, knife sharpener, crowbar, and also a spanner, is a combination of useful tools and meets the requirements of the household, shop, farm and station. Made from high-grade Swedish steel throughout, it is practically indestructible. The various tools are fashioned from the main shank or handle, thus making it impossible for them to break away.

Samples of the "Nicol" door stop and buffer are also being shown by this firm. Patent No. 10675/23, they come in the form of a metal shield with a block of rubber attached. Simple and effective, the "Nicol," when screwed on to the outer edge of the door and left free to oscillate, will hold it in any position. To prevent slamming of doors, the stop should be screwed on so that the top of the rubber bears against the doorframe when shutting. It will not damage carpets or linos.

Mostly Australian.

Wright & Co., of Broughton House, 181 Clarence-street, Sydney, have unpacked new samples on behalf of several principals.

R. H. Mytton & Co. Ltd., Melbourne, have sent a wide range of stamped log boxes, fire screens, plaques, and so forth, after famous Flemish pictures by artists of the fifteenth and sixteenth centuries. It is said that this is the first time such work has been attempted in Australia. The pictures have been clearly defined, and the reproductions faithfully done, comparing favourably with imported productions. In an effort to capture the Australian trade prices of some of the lines, particularly plaques, have been cut exceptionally low.

Pearson-Page Co., Ltd., London, specialise in the manufacture of old English brassware reproductions, including lanterns and lantern brackets, floor standards, table lamps, candle sticks and fireside sets. While of ancient design the lanterns are bushed and drilled for electric lighting. Door bells take on a wide variety of designs, there being Canterbury crosses, English literary celebrities, Cheshire cats, and representations of old English legends.

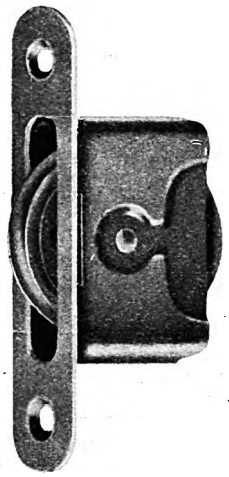
Cooper & Sons, Sheffield, are now making bread saws and small tools, incorporating both standard and mass production lines at prices to meet the strongest competition. By this change of method they are enabled to offer better quality at lower prices. Tools are made for a great variety of trades. Cutlery and household articles for domestic and personal use are in wide range.

On behalf of W. H. Hawkey, 37 Cumberland-place, Melbourne, a selection of artistic table lamps is being shown.

Wrought iron fire companions by C. J. White & Sons Pty. Ltd., Melbourne, are made in period designs, the range including hand irons, basket-shaped grates, iron lamps, and similar lines.

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Tools and Cutlery.



Mr. Stanley B. Gamble, of Daking House, Rawson-place, Sydney, is showing a wide range of tools and cutlery on behalf of Henry Kaufman & Sons, Solingen, Germany. Razors are in three widths of blade, ½ in., ⅝ in., and ¾ in., and these are electrically ground by a special process to retain the temper. Made with round or square point, they are well handled. More than 400 different kinds of pocket knives are made by the firm, and Mr. Gamble has 200 samples on view, varying from about an inch long to the big "Mercator" variety, with the blade so fixed that when opened there is no danger of it being closed until a spring is released. There are knives with gaudy handles, but the sale of these here is almost confined to the foreign population although there is a big market in South America.

Scissors are in great variety, ranging from tiny "Stork" embroidery articles to big shears used by tailors, and in between come scissors for drapers, for housewives and barbers. Hair clippers are said to embody several new points, the chief of which is the extra quality of the blades.

Tools for engineers, carpenters and other tradesmen are numerous. New is a square with spirit level attached, and another new device is a breaster drill with a two speed attachment and a spirit level. Another useful novelty is a hedge shear with a patent tension screw whereby the tension may be increased or decreased by simply turning a screw. The blades are hollow ground, razor fashion, and have a sharp cutting edge. They can be conveniently taken apart by operating a thumb screw release. A footprint pattern wrench is operated by the movement of a thread adjustment, the turning of a screw enabling the distance between the jaws to be regulated without taking them apart. A ratchet is worthy of note, the mechanism being operated by pressing a button exactly the same as the old type knurl collar ratchets, except that the new movement is positive and quicker in action. A new hand vyce has a special attachment for holding the metal in whatever position is desired, and lower down the jaws are specially fitted for holding circular pipes.

On behalf of the National Lock Co., Rockford, Ill., U.S.A., Mr. Gamble is showing a series of wrought steel sash pulleys, for which several advantages are claimed. They are said to be light in weight and very durable, while they are economical in first cost and effect a saving in freight and labour. The wheels are designed with a combination groove adapted to either cord or chain. Heavy axle pins made of cold drawn steel are provided. The pins are shouldered and are riveted on the outside of the housing, so that the latter is securely held between the shoulder and the rivet head. A number of the sash pulleys are equipped with saw teeth and others with metal tongues, which hold them in place by friction. Counter boring for the face plate is thus eliminated, and no screws are required. The wheel is enclosed by the housing in such a way that the cord or chain cannot get out of the wheel groove.

American Innovations.

Mr. H. J. Beer, of Hardware House, Post Office-place, Melbourne, has now on show a complete new range of the Henley Lawn Mower Co.'s lawn mowers.

Some interesting new samples are also opened of Plumb's well-known lines—axes, hatchets, and hammers. The popularity of these has been due largely to the quality of materials, and also to the excellent finish with which the trade is now familiar. In this new range still further improvements in the finishing processes are to be found. The red handles and black head were responsible to a great extent for the fine appearance of the tools. The name "Plumb" now comes in gold letters upon the head of all small tools, forming a combination of colours which is most pleasing to the eye, and should prove attractive to buyers.

The Plumb "Profit Package" is now familiar to the trade everywhere. It comprises a combination of show window display, counter cards, and counter display case. Investigations have shown that retail sales are strongly influenced by a window display on the street supported by a similar display inside the store. In this special package all the necessary materials are supplied for a complete and effective selling scheme.

Amongst the Enterprise Mfg. Co.'s well-known lines are several useful items which deserve attention. Raisin and grape seeders and cherry stoners are made in various sizes, and are constructed and finished in the company's usual reliable style. "Enterprise" cobblers' kits should also attract buyers. They consist of sets of lasts and standards which, for design and convenience would be difficult to improve. The standard is made to take any sized last, and permits the foot to be adjusted to any angle while still remaining firm. They are recommended not only for tradesmen, but also for farmers or others who handle their own repairs.

A new type of tin opener is long overdue. The old patterns have many good points, but the possibility of cutting the hands is a constant danger. The Enterprise Co. have devised an opener with no sharp wheel or knife, nor any edge liable to slip out while in use. The appliance is clamped to the tin in a moment, and the simple turning of a key as one winds a clock takes the top off. It opens the top of the can, and when the circle is almost completed the lid automatically rises so that it may be grasped for easy removal, before giving the last turn which severs the top. There would appear to be nothing in this opener to get out of order or to require sharpening, and it should last indefinitely. It is quite low in price. Other samples from this firm include food choppers, sausage machines, and sausage stuffers, as well as a range of coffee grinders, corn and bone mills, and other such lines.

"Yes, Sir?"

An unnecessary evil, often found in the larger retail stores, is the ignorant, ungrammatical and increasingly annoying greeting of the over-anxious salesman, "Yes, sir?"

A patron enters a store with one object in view. Either there is a definite purchase in mind or a desire to "look around." When the patron knows what he is after and perhaps where it can be found, it is exceedingly annoying to be accosted at the door with this greeting. It does not make for increased sales. If a person is merely looking around, the question is embarrassing. The continual repetition tears down the sturdy walls of good will.

With the present day system of open display tables, it is far better to greet the customer with a cheery "Good morning" and let him go to the merchandise, look it over, and possibly, make a decision, all the while having a salesman conveniently available. Then is the time for the "Is there anything I can do to help?" which is never out of place. — American Exchange.

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Pottery and Glassware

"Foley" Chinaware.

Mr. Albert H. Mullins, of Culwulla Chambers, Castlereagh-street, Sydney, has received new samples of "Foley" china from E. Brain & Co. Ltd., Fenton, England, and every piece bears the brand of the makers. Very rich, yet imparting an air of dignity and refinement, are the silhouettes. Somewhat similar are the lines bearing fruit decorations. They are in a large variety of colours, the bodies being in old gold, powdered blue, royal blue, or something equally striking. In the centre is a representation of a basket of fruit. Then a band of floral designs and festoons of gold.

The new dinner and tea sets in floral designs prove popular, being dainty and smart looking. The artists have not made the mistake of over embellishment, the treatment being simple, yet artistic and neat. One that attracted attention was done in apple blossoms, held together by festoons of leaves. There are, however, dozens of floral effects, including one in pansies, which stood out prominently over the others on account of the rich and varied colouring. The cups are varied as to shape, a few of the most noteworthy being the "Sydney," the "Swansea," "Saxon," Eton," and "Tudor." The plates may be had in the new square or octagonal shapes. Supper sets are supplied separately, the suite comprising a sandwich plate and six muffins.

A feature of the "Foley" china is its clarity, not a flaw being seen against the light.

Swedish Glassware.

As representatives of Broda-Buks, A. B., a Swedish firm, J. Chaleyer & Co. Pty. Ltd., of 510-14 Collins-street, Melbourne, have a large display of cut crystal glassware at their showrooms. This range comprises table glass and domestic ware, many of the pieces presenting features of unusual interst to buyers.

Different shapes and patterns of butter dishes, sugars and creams, jams, and similar vessels are excellently done. One or two cheese dishes and covers are quite original in design, and should be appreciated by the trade. Crystal glass trays are, perhaps, unusual, but those here shown are sure to please. They are round in shape and the introduction of Australian flowers in the decorations breaks new ground; cutting is perfectly executed. Vases and specimen glasses are not confined to the conventional pattern, many being of a delicate type, with finely traced lines and figures. This applies also to liqueur glasses and goblets. There are Madieras, whiskies, sherries, and champagnes, the various suites being most attractive.

Other pieces include punch bowls, decanters in a number of different kinds, fruit and sweets dishes, puff boxes, and tumblers. A large oval-shaped jardiniere is specially impressive, while among the vases are one or two of great size, brilliantly cut, and solidly built. A toilet set, of tinted crystal glass consists of jug and basin, soap dish, etc.

The whole range is worth inspection, the bright colour of the glass, with glints of blue where the light is reflected, presenting quite a fine appearance. The tints are understood to be due to the special lead used in the production, and is considered to be one of the features of the work of these manufacturers.

British and Continental.

Among the various ranges of stock which are being displayed by W. G. South & Cowan Ltd., of 352 Kent-street, Sydney, is a fine display of new and smartly decorated pottery personally selected by Mr. South from A. J. Wilkinson Ltd., Burslem, England. This comprises Vikings with centres shaped canoe fashion, also baskets with centres. Red, blue and canary shades on a background of black form the decorations.

Schramberger Majolica Co., Germany, are represented by an excellent display of pottery in the form of ornamental vases and allied lines, the decorations of which are of highly artistic hand painted rural scenes.

New designs of crystal ware from the factory of Thomas Webb & Corbett Ltd., Stourbridge, England, are rose bowls, salads, vases, goblet sets and egg cups. The cuttings in diamond and wreaths of leaves are really superb.

Jones & Joseph Ltd., of 235-39 Clarence-street, Sydney, have on hand a large assortment of crystal chandeliers from Dr. Preuss & Welten, of Gablonz, Czechoslovakia. This type of glassware is becoming more popular every year, and distinctive effects can be obtained in hotel, theatre and residential lighting with good cut crystal glass fittings of appropriate designs. A brilliant lustre is given by the pendants and ornaments when lighted. No. 22449 is a six-candle chandelier finished in old gold, silver or nickel, and is particularly handsome in appearance, the ornaments and candle sconces being cut and faced. No. 22715 is also suitable for private dining room or drawing room, and can be fitted with one to three lights. The prism glass octagonal drops glitter brilliantly when lighted, and are also bright in the daytime. Very handsome is No. 22449, a larger size suitable for hotels or theatre lounges. The old gold, silver or nickel fittings are embellished with brilliants of various sizes and designs, the candle sconces being placed so as to show the lustre to the best advantage. Another large ornamentation is somewhat pear-shaped, and very elaborate. Somewhat similar in shape is another large device with chains of drops and pendants, surmounted by an artistically-shaped globe.

From the same makers come very fine examples of colored glass shades in striking colors.

"Glazoweb," a new product of the same manufacturers, is made from a fabric dipped in glass, and is used for lamp shades. Here, again, we have brilliant and artistic colouring. An advantage is that the shades can be washed, and they have the appearance of shrunken silk.

Helzell Bros., Kreibitz, Czechoslovakia, have supplied an interesting display of coloured glass bowls and shades, in a variety of sizes and designs. Most attractive are those so made as to give the appearance of silk, the illusion being pronounced at a distance.

Thompson & Rohan Pty. Ltd., of McEwan House, Melbourne, advise a shipment now landing of Dutch pottery, including vases, candlesticks, shoes, and similar novelty lines suitable for gifts and Christmas trade.

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They are displaying a fine selection of Wurtemberg ware, comprising tea sets and trays, hot water jugs, biscuit boxes, jams and butters. This material is now well known, and makes an attractive show with its fine colour effects and graceful shapes.

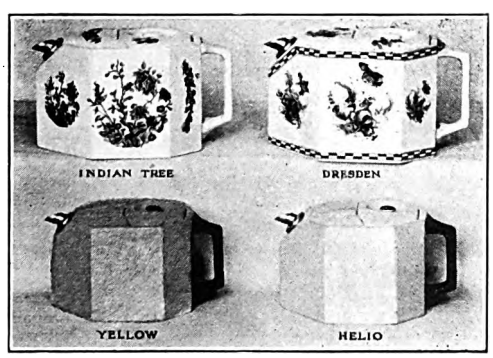
Arrangements have been made for supplies of Stuart's crystal ware in exclusive cuttings. This will be constantly stocked in all lines. Replacements of any piece may be made when necessary, so that suites can be kept complete.

"Poole" Pottery.

R. F. Higgs & Co. Ltd., of 297-99 Castlereagh-street, Sydney, are showing a wide range of pottery and glassware on behalf of various manufacturers. Unusual is the "Poole" pottery, from Carter, Stabler & Adams Ltd., Poole, Dorset, England. "Poole" pottery is made entirely by hand, being thrown on the potters' wheel and decorated with brush-wash designs of modern character, in connection with a fine semi-matt glaze. The decorative effects of the ware is very fine, and appeals the more it is looked at. The technique and design lend a great charm to the ware. Because of the organisation it has been found possible to send out consignments at prices within the means of most people. No two pieces are alike, but any piece can be obtained again if required, allowing for the slight difference which hand-made wares are liable to, and which contribute to their charm. The stoneware figures are distinctive, and were the first such figures of modern design to be produced.

A wide range of high-grade tea ware from Fenton, Staffordshire, decorates the benches. A feature of this ware is its light weight and thinness. It is beautifully finished, the decorations being choice and dainty. Those with a powder blue body, enriched with gold festoons and floral decorations are distinctive. Another very striking range is in powder blue with a deep red and gold border. New and very attractive is the line with a snow white body on the outside and delicately shaded tints inside. Another line has a white body, decorated at the top with golden drops and coloured spots alternating.

From G. M. Creyche & Sons Ltd., Hanley, Staffordshire, comes a new teapot with several distinctive features. It is squat-shaped, and instead of the customary long spout there is a short metal projection. It is claimed that the spout is unbreakable and never



drips. The handle is moulded with the body, and therefore cannot come loose. The strainer is at the entrance to the spout at the top, the tea coming out without the admixture of dregs and tea leaves. The same makers supply a wide range of milk jugs, hot water jugs, and teapots of good finish at low prices.

On behalf of Bohemian manufacturers a big display of best crystal hand-cut bowls and ornaments is made. Novelties are numerous, cruets attracting attention and representing fish, motor cars, fully equipped sailing boats, and dainty shamrocks. Smart and pretty is a crystal trinket box with gaily coloured borders.

A. G. Harley Jones, Wilton Pottery, Staffordshire, supplies a fine assortment of vases and ornaments with lustre decorations, bearing rustic figures and scenes. Some are lavishly decorated with Oriental patterns and gold lace. Most effective are those in rich Chinese scenes on a dull black ground. Rich with a powder blue ground and borders of gold. Lustre teaware to match the ornaments of similar make are also supplied. From the same maker comes a variety of medium-priced dinner ware, and this can be had to match the teaware supplied by E. Hughes & Co. New as to shape and design are the toilet sets. The basins are oval, and the jugs round, being the same size top and bottom. Arcadian decorations on coloured bodies make an appropriate finish.

Personal and Social

Testamentary.

By a will dated March 3, 1926, the late Mr. George McKay, of Sunshine, Victoria, disposed of real estate valued at £3182 and personal property valued at £50,737. Subject to gifts to his brothers and sisters and £600 divided among different organisations the estate goes to the testator's widow and family.

Injury to Hardware Merchant.

On November 7 Mr. W. G. Duthie, managing director of John Duthie & Co. Ltd., Wellington, New Zealand, sustained rather serious injuries. A motor car in which he was a passenger collided with a tramcar and he was cut about the head by the splintered glass. He was taken to a private hospital where at latest accounts he was making good progress.

Death of Mr. W. H. Mate.

The late William Henry Mate, whose death is reported, was well known in the Riverina as a sportsman and grazier. He was also known in business, having been connected for many years with T. H. Mate & Co. Ltd., of Albury. The second son of the founder of that firm and business (the late Mr. T. H. Mate), he was from 1890 to 1907 the chairman of directors. He leaves a widow.

Sudden Death of an Aged Ironmonger.

While attending church on Sunday, November 6, Mr. William Couston, of Dunedin, New Zealand, collapsed and was carried into the vestry where he died in a few minutes.

Born at the Scottish town of Dumfermline in 1839, and consequently about 88 years of age, the deceased was well known in Dunedin. Coming there as a young man, he opened the business of a retail ironmonger, which he has conducted ever since. In fact on the day before his death he was in the shop up to 8.45 p.m.

Since 1885 the late Mr. Couston had been an elder of the Presbyterian Church and was the oldest office-bearer of First Church where he worshipped regularly. He was also a generous contributor to every deserving cause. A widow and family of six—two sons and four daughters—are left behind. The two sons, Mr. William Couston and Mr. Charles K. Couston, had been associated with their father in the business for some years.

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News from Abroad

Shortage of Tin Suggested.

According to cabled reports, Mr. D. H. Hacking informed a questioner in the House of Commons on November 28, that some authorities feared a world shortage of tin. The discussions on the possibility of stabilising prices were being followed very closely. He did not think a scientific inquiry by the Government into the possibility of conserving the Empire's tin resources would be at present advantageous.

A Challenged Policy.

Because the Machine Tool Trades' Association, of London, decided that no German machine tools should be admitted to their forthcoming exhibition, the Selson Engineering Co. Ltd., resigned from the membership, and their Mr. Henry M. Selson from the council of the association. Other Continental, as well as American machines, are to be received, but not German, and the firm mentioned hold that this is an indefensible policy. They maintain that the exhibition should either be frankly international, with every country allowed to show the best of its products, or that it should be confined to British tools only. Either of these alternatives, they say, would command respect, but not the policy adopted.

International Exhibitions in Belgium.

The year 1930 will mark the centenary of Belgium's independence—it parted from Holland in 1830—and two international exhibitions are being arranged. Liege will have a display representing the iron and steel industries, while Antwerp, the great port of the little country, will feature practically every other interest. The classification shows ten groups, including machinery, electrical plant, and various other articles suitable for exportation to the colonies. Under the patronage of the King and the Government of Belgium, the Antwerp Exhibition will be run by a joint-stock company with a strong board of directors. The director-general is Baron R. de Terwangne.

Rivetless Steel Bridge.

An arc-welded rivetless steel railway bridge, said to be the first of its kind anywhere, is to be erected in the United States of America. Measuring 175 ft. in length it will span a water-power canal at Chicopee Falls, Mass. The builders are the Westinghouse Electric and Manufacturing Co., whose local plant it will connect with the Boston and Maine Railway so as to obviate trucking. When finished the bridge will be practically a one-piece structure, since every joint will be welded solid and immovable. Were the work riveted 120 tons of steel would be required, whereas 80 tons will suffice for a rivetless bridge of equal length. Consequently the structure will cost less and is expected to last longer. The company's structional engineer, Mr. Gilbert D. Fish, says there is no doubt whatever that arc-welded joints can be made stronger than welded joints.

Old Scottish Ironworks.

Holiday making near Oban, on the west of Scotland, a London engineer was led to visit an ancient ironworks. The works were on Loch Etive at a place then called "Bonar," located there because plenty of timber was available for charcoal. As far as can be gathered the ore was brought by ship from Cumberland. The blast furnace, a square building, is still in a good state of preservation. Near it is an old water-wheel which seemingly worked the blowers. Over the mouth of the outlet from the furnace is cast the legend "Bonar, 1753." Says the engineer concerned. "A good deal of the material which was used in the Napoleonic wars was produced at this furnace, and there is a monolith shaft erected on a hill near the furnace which bears a board stating that it was erected by the workmen of 'Bonar' furnace to the memory of Nelson. This was, I believe, the first memorial erected to this admiral."

British Factories in South Africa.

We are informed that the Board of Trade and Industries has lately received a number of requests from overseas firms for information regarding existing facilities for the establishment of factories in the Union. The Board has made every effort to comply with these requests with the hope of inducing applicants to establish factories in South Africa. However, the number of inquiries makes it imperative that a comprehensive brochure on the subject should be prepared. The Board asks for the following information: Supply and cost of electric power and water for industrial purposes, availability and cost of land, municipal and other rates and supply of labor. A document, prepared on the lines indicated for the chief industrial centres of the Union, was recently circulated by the South African Federated Chamber of Industries.—"Industrial and Commercial South Africa."

The Armstrong-Vickers Amalgamation.

According to cabled reports the holders of various classes of shares and debentures in Sir W. G. Armstrong, Whitworth & Co. Ltd., have passed resolutions for a fusion with Vickers Ltd., under the title of Vickers, Armstrong Ltd. Similar resolutions were also passed by the shareholders of Vickers Ltd. The capital of the new company is not to exceed £21,000,000. Vickers receiving £8,500,000 in fully paid shares, and Armstrong's £4,500,000 in fully paid shares as the purchase price. A novel feature is an arrangement with an insurance company for a policy under which, if the profits do not reach £900,000 in any year, the insuring company will contribute £200,000. The new company is to take over the naval ship-building, heavy and special steel and armament works of these two great firms. Both Vickers' and Armstrong's have suffered great losses from their common problem of finding work since the Armistice for their plants, which were greatly increased for the supply of armaments during the war. Vickers' assets were written down by £12,400,000 two years ago, and the losses and capital adjustments of Armstrong's are said to amount to about £11,000,000. By amalgamation production can be centralised, and works no longer needed for munitions will thus be further applied for commercial production.

New President for Remington Arms Co.

In succession to Mr. John B. Smiley, who resigned because of illness, Mr. Saunders Norvell has been elected president of the Remington Arms Co., Inc., and subsidiary concerns with headquarters at 25 Broadway, New York City.

Mr. Norvell is well known in the hardware trade of the United States. For many year with the Simmons Hardware Co., he ultimately became vice-president and sales manager and only left the service to found a company of his own the Norvell-Shapleigh Hardware Co. Some years ago he retired and devoted himself to travel and recreation. But leisure began to pall and the World War found him associated as chairman of the board of directors with McKesson & Robbins, Inc., wholesale drug merchants and manufacturing chemists. Recently he sold his interest in that company. All these years, however, he has kept in touch with the hardware trade and has written freely for "Hardware Age." He is a firm believer in the policy of jobber or merchant distribution and is recognised as a friend of the travelling salesmen and the retail dealer.

Mr. Norvell's duties will be fairly comprehensive, since his new company's activities cover four distinct fields—arms, ammunition, cutlery and cash registers. The arms and cash registers are manufactured at Ilion, N.Y., while the ammunition and cutlery plants are located at Bridgeport, Conn.

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Commonwealth Tariff Decisions

The following decisions of more or less interest to the hardware trade have been made during October. By way of explanation it should be mentioned that the double number on the left of each entry represents the tariff decision number, while the number to the immediate right is the tariff item, and the date following (25/1/'26, and so on) the date on or from which the new decision took or takes effect:—

Baths—

27/935 T.D. 26/710 and the reference to Baths, galvanising, not less than 9 feet in length, 2 feet 6 inches in width, and 2 feet in depth, for the treatment of wire and wire-netting, in Consolidated By-laws, page 118, and in By-law No. 74, are to be cancelled, but any such Baths as were in direct transit to Australia on 7th November, 1927, may be admitted under Tariff Item 415a (2). (By-law No. 658.) .. 7/11/27

Electrical Appliances and Materials—

27/944 Electrodes, Graphite (By-law No. 651) 415a (1) 27/8/26
Note.—By-law No. 563 and T.D.'s 25/551 and 27/818 are to be cancelled.
The reference to Graphite Electrodes for use in the manufacture or repair of Electrolytic Cells in Consolidated By-laws, page 90, and in By-law No. 71, is to be cancelled. (By-law No. 649.)

Felt—

27/946 Consisting of a woven fabric, heavily felted, specially constructed for use with biscuit machines, under security. (By-law No. 654.) 415a (2) 26/4/27

Forks—

27/948 Electroplated, accompanying Electroplated Salad Bowls, Jam Dishes or Jars (as Plated Forks). 197(a) 7/11/27
Note.—These Forks are not regarded for Tariff or Preference purposes as parts of the Salad Bowls, Jam Dishes or Jars; they should be invoiced separately.

Knives—

27/949 Butter, Electroplated, accompanying Electroplated Butter Dishes (as Plated Butter Knives). 197(a) 7/11/27
Note.—These Butter Knives and Butter Dishes are regarded as separate articles for both Tariff and Preference purposse; they should be invoiced separately.

Machinery, Machines, etc.—

27/950 Pulley Blocks, Gear, lever operated. (By-law No. 647, Miscellaneous.) 174 4/4/27

Machinery, Machines, etc.—

27/951 Sleeves, Felt, for use on Rubber Roll Putting Out Machines (Leatherworking). (By-law No. 655.) 415a (2) 21/7/27

Paints, Colours, Varnishes, etc.—

27/953 Lithopone, containing in addition to zinc sulphide and barium sulphate, not more than 5 per cent. of other matter, for use in the manufacture of Linoleums, under security. (By-law No. 648.) 404 12/9/27

Preference, British—

27/954—Platedware—Articles such at Plated Salad Servers, Plated Jam Spoons, and Plated Butter Knives, imported with Plated Salad Bowls, Plated Jam Dishes, and Plated Butter Dishes respectively, are classifiable under Tariff Item 197 (a), not as Platedware, but as Spoons, Forks, and Knives, which are specifically mentioned in that Tariff Item. .. ..
For Preference purposes the Servers, etc., are treated as separate articles from the goods which they accompany and should, therefore, be invoiced separately.

Servers—

27/955 Salad, Electroplated, accompanying Electroplated Salad Bowls (as Plated Spoons or Forks). 197(a) 7/11/27
Note.—These Servers and Salad Bowls are regarded as separate articles both for Tariff and Preference purposes; they should be invoiced separately.

Spoons—

27/956 Electroplated, accompanying Electroplated Salad Bowls, Jam Dishes or Jars (as plated spoons). 197(a) 7/11/27
Note.—These Spoons are not regarded for Tariff or Preference purposes as parts of the Salad Bowls, Jam Dishes or Jars; they should be invoiced separately.

Machinery, Machines, etc.—

27/969 T.D. 27/851, having reference to Exploding Machines, Electric, Hand-operated, etc., is to be amended to operate on and from 29th March, 1927. .. ..

Machinery, Machines, etc.—

27/981 Scaling Machines, Boiler Tube .. .. 176(f) 28/11/27
Note.—The reference to Scalers, etc., in "Guide," page 223, is to be cancelled.

Packings—

27/984 Being textile pipings, for use in the manufacture of Cool Chambers and Ice Chests, under security (By-law No. 676.) 404 3/6/27

Pipes and Tubes (Metal)—

27/985 Steel Tubes, weldless, 4 in., for use in the manufacture of Oil Pumps, under security (By-law No. 677.) 404 15/8/27

Scalers—

27/986 Boiler Tube, pneumatic, hand (as Pneumatic Hand Hammers). 219 28/11/27
Note.—The reference thereto in "Guide," page 327, is to be cancelled.

Sets—

27/987 Shaving, consisting of shaving mug and brush. 308 28/11/27

Principal and Agent

A New South Wales firm (26/169) writes:—A principal has instructed a commercial broker in another State to sell certain goods. The broker in question deviates from the specific instructions issued, and also gives the buyer to understand that the goods are sold on a firm basis, and on the strength of this such buyer resells. Upon receipt of the said order by the principal from the broker the deviation is at once detected, and such broker is informed immediately by telegram, to which he fails to reply; a further telegram is despatched, and still no reply. Seeing that no satisfaction can be obtained from the said broker, the principal telegraphs direct to the firm asking for instructions. The supposed buyer fails to reply by telegram, but communicates by letter, which arrives too late to have the business confirmed. The offer conveyed by telegram was subject to cable confirmation. The buying firm in question now takes up the position that unless the contract note is forthcoming, legal proceedings will be taken, as they have entered into obligations with their customers on the strength of representations made by such agent or broker. There is no written agreement or contract of any kind existing between the principal and broker.

A.—We are of opinion that the buying firm have no case against the principal.

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Interstate General News

Building in Sydney.

Statistics show that in Sydney and suburbs during the year ended June 30 last 10,388 new buildings were erected at a total cost of £15,113,427. The figures for the city of Sydney alone were 153 and £2,492,147 respectively. Whereas in 1914 the average cost of erecting a house was £628, by 1927 it had increased to £1222.

Pageant of Industry.

During the month the Wellington Manufacturers' Association, New Zealand, presented at the Town Hall what they called a pageant of industry. Besieds the various exhibits of New Zealand manufacture there were tableaux, fashion parades and animated poster displays. The pageant remained open for several days and was well attended.

Manufacturing Extensions.

The Fernhead Mfg. Co. are making extensions to their factory at Marrickville, Sydney, and are putting down new machinery for stamping brass and steel. The number of employees is to be increased. The firm are makers of a large variety of metal fittings, such as door handles, casement fasteners, furniture locks, and a contract has been received covering a large number of door handles and other fittings for a warehouse now being erected in Sydney.

Big Building in Wellington.

A contract has been let by the directors of the Drapery and General Importing Co., of New Zealand, Ltd., (the D.I.C.) for a new building, rising five storeys in height, with frontages to Lambton Quay and Brandon and Panama-streets, Wellington. The contractors are the Hansford & Mills Construction Co. Ltd., and the new premises are expected to cost about £200,000. Preparations are already being made by the contractors and immediately after Christmas the demolition of the present building on Lambton Quay will be entered upon in earnest.

Rebuilding a Foundry.

Burned out some years ago at Dannevirke, New Zealand, Collett & Son Ltd., are rebuilding at Mangatera, close to the railway siding. The move was made because of the fact that the municipal regulations at Dannevirke necessitated brick in the building area. On the new site a building of wood and iron, 150 ft. by 100 ft., has gone up, with an office and general store still to be erected. The firm are engineers and iron and brass founders, making, among other things, stone-crushing plants, waterwaggons, and tar boilers. They have a branch at Taumarunui.

New Factory Opened.

Johnstone & Rudd Ltd., manufacturers of aluminium ware, have removed from Bridge-road, Glebe, Sydney, to Hudson-street, Annandale, Sydney. The new factory, which has 14,600 sq. ft. of floor space, is built on modern lines, and seeing that this firm commenced operations only seven years ago in a small shed, it speaks volumes for their progress. With their expansion they have acquired many up-to-date machines, and the staff has been increased from two to forty. Repetition aluminium castings, kettles and aluminium hosiery forms (the latter being manufactured in their entirety and installed) are specialised in by this firm.

Theft from Warehouse.

At Auckland, New Zealand, on November 14, the Supreme Court pronounced sentence on six men in connection with the theft of tin from the warehouse of John Burns & Co. Ltd. Kenneth Edward James M'Quoid, and Frank Leonard O'Donnell were charged with breaking and entering and theft, and the former was sentenced to twelve months' hard labour, following the expiry of the term he is now serving, and O'Donnell to eighteen months' hard labour. Samuel Howard, for receiving stolen goods, was sentenced to twelve months' hard labour; Joseph John James Kyle to six months' hard labour; Frances Henry Rae to two years' reformative treatment, to be concurrent with the sentence he is now serving; and Harry Packer to one month's hard labour.

Conditions in the West.

Mr. Harold Beer, who recently returned to Melbourne from a business trip to Western Australia, found that State in a most prosperous condition. With a wheat crop approximating 38-40 million bushels, and a highly satisfactory wool clip, the outlook is distinctly good. The fruit crop equals that of last year, while the dairying industry shows an improvement over that period. Only in the timber business was there any depression, and that department was certainly very quiet.

It was pleasing to find a State which had escaped the rather dull conditions which obtain over most of the Commonwealth. South Australian wheat was estimated to produce only about 20 million bushels, or some 13 millions less than last year's crop, and the Murray vineyards had been badly injured by frost. Wool was the one bright spot in the primary production field. The feeling amongst South Australian business people was, in the main, against buying except for immediate needs, while in the West quite the opposite attitude was found.

Hardware Trades Cricket Association.

The positions of the various teams in the Hardware Trades Cricket Competition in Melbourne at the end of November were as follows:—Eliza Tinsley Pty. Ltd., 14 points; G. J. Coles & Co. Pty. Ltd., 11 points; J. Payne & Son Pty. Ltd., 11 points; McPhersons Pty. Ltd., 10 points; D. & A. Chandler Ltd., 8 points; John Danks & Son Pty. Ltd., 8 points; A. E. Atherton & Sons Pty. Ltd., 8 points; Cyclone Fence and Gate Co. Pty. Ltd., 8 points; Bennie, Teare & Co., 6 points; Evans Motor Spring Works Pty. Ltd., 4 points; Wunderleich Ltd., 4 points; James McEwan & Co. Pty. Ltd., 3 points; William Adams & Co. Ltd., 3 points; Dorman, Long & Co., Ltd., 3 points.

In connection with the inter-Association match to be held at Christmas time, the undermentioned players have been selected to practice:—Johnson and Caddaye (Coles); Casson, Horley and Wright (Payne); Taxino (Atherton); Perryman and Nance (Danks); Waxell, Maslin, and Newman (Chandlers); Denholm (McPherson's); Boyd and Hart (Evans); Hutcher (Wunderlich); Hughes and Poole (Dorman, Long). The selected men will practice each Tuesday evening, commencing on December 6th, at the Fitzroy Cricket Ground.

Hardware Firm Sold Out.

Keep, Macpherson Ltd., recently formed in Sydney by the amalgamation of Holdsworth, Macpherson & Co. Ltd., and John Keep & Sons Ltd., have acquired the entire stock and business interests of Hill, Magill Ltd., which company will be placed in voluntary liquidation. A meeting of shareholders has been convened for December 14, when that course will be suggested by the directors. It is not

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that the company are pushed in any way. They paid a dividend of 7 per cent. for the year ended June 30 last, and when affairs are finally settled the shareholders, it is anticipated, will receive an amount exceeding their paid-up capital. But as matters hardware now stand the directors believe this capital can be more profitably employed in other enterprises.

Carrying on business at 131-33 York-street, Sydney, as wholesale hardware merchants and importers, the company were registered as Hill, Dickinson & Magill Ltd., in 1907, when they took over the business carried on by a firm of the same name. Ten years earlier that firm had come to Sydney from Hillgrove, where a general business had been established some years before. Mr. S. Hill, the senior director, died in 1914, and Mr. H. Magill in 1926, so that neither of the original partners was left. A son of the latter, Mr. H. W. Magill, was a director of the company at the time of his father's death.

Oil at Roma, Queensland.

After twenty-five years prospecting there appears to be no doubt that the presence of oil at Roma has been definitely established. It now only remains to tap the principal sources of supply, to develop one of the most important products imported into Australia. All the experts that have examined the samples and site, are unanimous that the find is a very important one for Australia. Those who have persevered, and come at it again and again when their efforts were frustrated by mechanical obstructions, and other misfortunes, are to be congratulated. At time of writing a special meeting is being held at Roma, at which the Minister for Mines in Queensland (Mr. A. J. Jones), Mr. G. Woolnough, Commonwealth Government expert; Mr. A. C. Ball, Queensland oil expert, detailed by the Geological Department to supervise operations; Prcfessor Richards, professor of geology at the Queensland University; and members of the Roma Oil Corporation, to consider what further action in regard to boring and testing shall be carried out. Shares which a few months ago could be bought for 10/- have already reached £10/10/-, but are now back to about £7/10/-. There has also been a boom in the selection of oil prospecting areas, and the country has been taken up for miles around the present site, and also around Orallo, where a couple of bores have already been sunk. The outcome will be watched with a great deal of interest all over Australia.

Copper Prospects.

One after another the great copper-producing mines of Australia have ceased operations. Cobar, in New South Wales, Wallaroo and Moonta in South Australia, and more recently Mount Morgan, in Queensland, have closed down because with costs of production high and the price of the metal low the industry had become unprofitable. It is said that before stopping work the Wallaroo and Mount Morgan companies had lost between them about a million of money.

The only mine of importance still open is the Mount Lyell, in Tasmania, owned by the Mount Lyell Mining & Railway Co. Ltd., and if prices fall still further its continuance also will be threatened. At the annual meeting of the company recently held it was shown that the average price of copper for the year ended September 30 last was £62/11/11 per ton as compared with £66/2/5 for the previous year. Not only has the price come down, but the cost of winning and smelting the copper has gone up. The only redeeming feature is that the local consumption of raw copper has increased. During the year under review, indeed, it practically equalled the output from the refineries. Unless copper appreciates in outside markets or assistance is conceded through the Tariff Board, the directors of the company fear they may be obliged to close their doors like the other producers mentioned.

On the London Metal Exchange the latest quotation for electrolytic copper was £63/15/- to £64/5/-.

Trade of the Commonwealth.

The Quarterly Summary of Australian Statistics (September, 1927) gives the value of the principal articles of merchandise imported during the September quarter, 1926 and 1927. Following are the lines of direct interest to our readers:—

	September Quarter. 1926. £	1927. £
Cordage and Twines (excluding Metal Cordage)	88,320	123,461
Oils—		
Kerosene	300,640	238,014
Linseed	21,692	21,373
Lubricating (Mineral)	276,877	300,565
Petroleum Spirit	1,436,072	1,513,192
Turpentine	61,254	59,488
Other	319,704	309,197
Electrical Machinery and Appliances—		
Batteries and Accumulators	159,446	255,568
Cable and Wire, covered	397,113	396,233
Dynamo Electric Machines	267,139	325,547
Lamps, Filament, for lighting and heating	125,382	159,538
Implements and Machinery (Agricultural, Horticultural, etc.)	181,941	281,161
Metal-working Machinery	169,687	135,817
Motive-power Machinery (except Electric)	568,256	782,412
Printing Machinery	126,740	110,078
Sewing Machines	146,025	160,832
Yarn-making and Textile-making Machinery	122,224	117,394
Other Machines and Machinery	932,986	1,052,234
Alloys	86,763	72,735
Bolts and Nuts, Rivets and Washers	81,473	68,926
Iron and Steel—		
Bars, Rods, Hoops, Ingots, etc.	235,334	398,759
Beams, Channels, Girders, Joists, etc.	34,961	193,217
Pig and Scrap	21,359	23,130
Pipes and Tubes	385,916	382,218
Plate and Sheet—		
Galvanised—Corrugated	418,356	623,823
Galvanised—Flat	152,275	213,485
Plain	158,735	491,797
Tinned	199,634	324,907
Rails, Fishplates, Fishbolts, etc.	12,941	82,142
Wire	191,393	122,031
Lamps and Lampware	128,705	100,675
Plated Ware and Cutlery	282,779	224,969
Tools of Trade (not being machines)	344,412	274,686
Other Metals and Metal Manufactures	1,240,102	1,158,673
Cement (Portland)	15,573	15,599
Crockery and other Household Ware	178,085	218,712
Glass and Glassware	349,880	311,090
Other Earthenware, Cements, China and Stoneware	91,720	111,616
Brushware—		
Vacuum Cleaners (household)	49,114	60,007
Other	107,496	80,670
Grand Total	£41,522,990	£41,821,762

Notes from Christchurch, N.Z.

The annual conference of the Associated Chambers of Commerce was held in Christchurch early in the month when a number of important remits were discussed. Of particular importance are those relating to the manner in which the Government State Departments "are moving towards the enslavement of an unreflecting people," and commending the Government for introducing legislation designed to improve the constitution of the Arbitration Court. Delegates also emphasised the great importance of endeavouring to obtain for the South Island of New Zealand a better steam service from Australia, but a remit asking the Associated Chambers of Commerce in Australia to co-operate in making representations was defeated.

The complete change over in the shunting system at the Christchurch railway yards has now been made after the completion of the interlocking system on the goods railway lines between Addington and Middleton,

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With regard to the electrification of the Lyttelton tunnel, the Prime Minister (Mr. J. G. Coates) stated recently that most of the poles had been delivered at Woolston, the overhead gear ordered last August, and the material for the substation was expected next March. The surveys for the pole line and suspensions had now been completed, and a store and workshop had been erected at Woolston. Arrangements were well in hand for the substation site at Woolston, and the erection of the poles would be commenced soon in order to be ready for the overhead gear on its arrival.

The Department of Economics of Canterbury College at regular intervals issues very interesting bulletins investigating industrial problems, and recently another of these was forwarded to the Canterbury Chamber of Commerce. This stated that the disparity between the price levels of the sheltered and unsheltered industries is undoubtedly a main cause underlying the economic difficulties which have afflicted the Dominion since 1920. As a remedy means were suggested in this bulletin to alleviate present conditions and to help restore prosperity to those primary industries on which the prosperity of the whole Dominion is so closely dependent. Closer attention to the business side of farming was needed, better farm management, and organisation, elimination of waste, and fuller utilisation of resources. The bulletin stated that the Government appeared to be doing its best with one hand to help particular industries and to hinder industry in general with the other while it imposed on all industry "the swollen costs of both its help and its hindrance."

Victorian Hardware Club.

The first annual dinner of the Victorian Hardware Club was held at the club rooms on November 24, with the president (Mr. J. G. Black) in the chair and Mr. Herbert H. Smith, M.L.C., as the guest of the evening. Others present were Aldermen Kane and Marks, of the Melbourne City Council; and Messrs. L. J. Anderson (John Danks & Son Pty. Ltd.), Morton (city engineer), and W. P. Bice (president, Saddlers' Ironmongery Association). Apologies were read from several hardware men who were unable to be present.

The gathering assumed a somewhat political character, many of the speeches referring to municipal and public affairs. In replying to the toast of his health, Mr. Smith referred to his early struggles, and recounted the incidents leading to his election to Parliament. Men sent there ought to be able to look to all sides of a question. Class feeling was too pronounced. Conditions throughout Victoria at the present time gave cause for serious concern. Councillor Marks and Aldermen Kane, who also spoke, were equally emphatic in their words of warning. The latter said that all the statesmanship at Australia's disposal would be necessary to enable it to weather the coming storm. With a deficiency of £20,000,000 less of exports than imports the position was very grave. The interest alone to be found amounted to £1,000,000 per week to Australia. He feared Australians were forgetting how to work. People were living too fast, spending twenty-five shillings where they only earned twenty.

Mr. Anderson, of John Danks & Son Pty. Ltd., said that he had been for forty-five years in the hardware trade, and had never seen the game so bad as it was to-day. In some States he heard that employees were working only three-quarter time. While he did not anticipate that they would be compelled to adopt this course here, they were facing a most serious situation, and economy was imperative. He believed that there was nothing worse to come, however, and other prominent firms had assured him they did not expect to be forced to reduce hands. His own firm found it difficult to meet overseas competition in their factory production.

Mr. Leonard Cooper replied to the toast of the Hardware Trade.

The toast of Parliament was proposed by Mr. E. A. Kearney, in a happy little speech, and the City Corporation by Mr. Myers, the latter referring appreciatively to the assistance given by the city engineer in connection with the building of the new club premises. He specially thanked Mr. Morton for his efforts in securing the name Hardware-street.

References were made by speakers to the affairs of the Hardware Club, congratulating the executive on the progress made since taking possession of their new building. It was emphasised that the club was now in a satisfactory financial position.

The final of the annual billiards tournament at the Victorian Hardware Club was played during the month. After an interesting game, V. R. Powell (on 110) defeated H. Gaukroger (on 100) by 19. About half way, Powell had a lead of 60 odd, but Gaukroger drew up nearly level nearing the finish. Winners' breaks were 37, 30 and 23. Losers', 26, 21 and 24. Powell's wins were nearly all close.

Courting the "Kiddies."

In Meriden, Conn., U.S.A., Mr. Herman W. Morse attracts peope from miles away through the agency of his toy department. Taken up ten years ago as a likely draw, it is now the largest department of the kind connected with any hardware store between New York City and Boston. Meriden is a town of some 30,000 people, and Mr. Morse's annual sale of toys runs to something like 20,000. The second floor of the shop is wholly devoted to toys of all kinds, the stock being well assorted and well displayed. With the sole exception of the higher-priced dolls, all the articles are spread out on open tables so as to be readily accessible. Related goods are grouped together, and every item is painly price-marked. Many signs about the store invite customers to visit "toyland" on the second floor. Mr. Morse is now known not only as a dealer in toys but as something like an authority on the subject, and people come from Wallingford, Waterbury, and other places to buy. At first the staircase to "toyland" was near the front of the store, but noticing that some people went directly upstairs without stopping to look at the ordinary stock below, Mr. Morse had the staircase placed at the rear instead. This he found one of his best moves, for in reaching the toys those who entered were compelled to see a good deal more, and sales followed as he had expected.

Interest on Overdue Accounts.

An interesting point on the right of persons to charge interest on overdue accounts was made clear by His Honor Judge Higgins at Holsworthy (Devon) County Court recently, when S. L. Manning & Son, agricultural engineers, Holsworthy, brought an action against J. Yelland, blacksmith, Launcells, to recover £1/19/7, balance of an account and interest. Mrs. Yelland had called and offered the balance due for the goods suplied, but declined to pay the five shillings interest, which had been charged on the overdue account, and plaintiffs refused to accept the £1/14/7, considering they were entitled to charge interest in view of the fact that they had given notice of their intention to do so.

His Honor said tradesmen were entitled to sue immediately goods were sold, but could not recover interest unless the debtor had agred to pay it, and he gave judgment for plaintiffs for £1/14/7 only.—"The Hardware Trade Journal."

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Australasian Metal Markets

All prices are quoted for approved brands, duty and over charges included.
For English prices, see The Month's Cablegrams on page 393

SYDNEY, November 29, 1927.

It has been a quiet month generally, but prices have not changed to any appreciable extent. Shelf goods have had attention, and distribution has been as regular as is usual for this period of the year Bounteous rains have fallen all over the State, and this will augment the prospects of further business before the year closes. Jute fabrics showed little variation in price, and business written was not very large, but there has been an absence of buying from the country, due to the dry conditions, and this was reflected in the metropolitan area for interhouse trade. There has been a reduction in the distributing prices of galvanised and plain sheets, and stocks held are more than sufficient to cover demands. Through various channels, however, a fair distributing turnover is noted. Oils are in full supply, with very small business recorded, and indent parcels are not expected to be large for some time yet. Tinplates are quiet, stocks are arriving on indents which are overdue, and while the market quotation for stocks remains firm little business has taken place. The manufacturers report sufficient stocks to cover demands and, although there is healthy indications of regular output, stocks will probably carry over until the New Year. Diamond plaster has sold readily, and indent positions are well covered. Turpentine has shown a very small response to the reduced price overseas for forward shipment. Stocks held on spot are fairly heavy, and painters and manufacturers have not hitherto been using quantities and it is thought the warmer weather will create a demand consistent with summer consumption. Resin is well held, but only small transactions are reported, and the American product is out of competition with the French quotations for indent. Suburban stores report a fairly good month, although there is a noticeable absence of large cash trading. It is felt that before Christmas there will be a greater support in this direction from the regular patrons in the respective lines stocked.

Christchurch, November 22, 1927.

Present indications point to much better prospects for business in the near future. Just recently the city has been packed full of visitors for the New Zealand Cup and the agricultural show at Addington, which this year was a great success, the exhibits of fat stock and implements being of outstanding merit. In particular the International Harvester Co. had one of the biggest and most complete exhibits of McCormick-Deering farm tractors, reapers and combines that has ever been seen in the Dominion. During the Cup and Show week the usual big exhibitions of motor cars and accessories known as the "Olympia" Show, was held in the King Edward barracks. It was attended by many thousands of interested spectators, and very good busienss is reported in spite of the talk that everyone is "hard up." The weather has been very unsettled, much rain falling at intervals. This should help the crops, but it is unfortunate for the farmer, who has cut his hay and is trying to harvest it. Good prices are being obtained for wool and butterfat, and with the prospect of a good harvest, farmers are fairly optimistic. On the other hand the continued damp weather is affecting the growers of potatoes, cases of rotting having been reported from this cause. The Government have placed a tax of 4d. a gallon on petrol, the whole proceeds to be employed in improving the motor roads throughout the Dominion. The present price of petrol from garages and "bowsers" is 1/7 per gallon. Other price fluctuations noted since last month are as follows:—Galvanised corrugated roofing iron, Orb or first quality, has dropped £1, and is now sold to builders at £30 per ton basis 8 ft. 26 gauge; second quality is £28. Galvanised water pipe has dropped in price from a discount of 42½ to 47½ off, pig lead has been reduced to 33/-, sheet lead to 38/- per cwt., and ingot tin to 3/2 per lb. White lead is being sold at £55 ton owing to several heavy shipments having been landed too closely on a market which is not able to absorb the supply quickly. Other prices remain as at last report.

Wellington, November 25, 1927.

Business is steadily improving here, and finance is getting easier. For the year ended October 31

NEW ZEALAND PRICES.

	Duty.	Auckland, Oct. 17	C'church Nov. 22	Dunedin, Nov. 16	Wellington Nov. 25
RON—					
Bar—		£	£	£	£
English ..	Free	21	22/	22/	24
Shoeing ...	,,	23	23/	20/	25
Steel ...	,,	15/10 to 21/-	20	22/	17/6 to 24/
Pig	,,	8	10/6	10/6	9/- to 10/-
Plate ...	,,	21 10/	24/	25/	24/6
Hoop ...	,,	24/, 35/	25/6, 37/6	32/	33
Sheet, Blk.	,,				
to 20-g. ...		23 10/, 24 10/	25/6	26/	24/6 to 26/6
22 & 24 g.		25 10/	28/6	28/	26/6
Galv. Cor.—	2/-				
First ...		29	30/ Builders	30/	29
Second ...	,,	28	28/- ,,	28/6	28
Local ...	—	29		...	...
Do., Plain	Free		...		
24 & 26 g.		31/, 32/	31/, 33/	35, 37, 39	26
Pipe—Galv.	Free	45%	47½% off	42½	40% off
Black	,,	50%	50% off	50% off	50% off
Wire—	,,				
Galvd. ...	,,	15/6, 18/-	18/	16/6	17/6 to 18/6
Black ...		16/-	17/	15/6	
Barbed ...	,,	21, 23 10/	24/-	21/	22/ to 23/
Nails ...	2/4/-c	20/6	22/6	21 10/ to 23	22
,, N Z.		20/6	...		22
Lead—Pig	Free	30/6	33/-	48/	35
,, Sheet	,,	38 10,	38/-	45/	42½
,, Shot	10/-	75/	75/	80/	75/
Tin—Ingot	Free	3/-	3/2	3/2	3/4
,, Plates	,,	32/6, 48/6	40/	40/	37/6
Zinc—Sheet	,,	7½d. lb.	9d. lb.	8¼d.	8¼d
Quicksilver	—	...	6/6 lb	...	...
Cement—					
Imported	1/-cwt.	...	22/6 cask	...	...
Local bag	—	5/8	7/-	6/	5/11
Slates ,,	Free				
P. of Paris ...	,,	26/-	30/-	28/-	27/
White Lead	10%a.v.				
Best ...	—	57/	55/	58/-	£5/ to 66, 64
Second ...	—	56/		...	
Blst. Powder	Free	1/8	1/9	1/7	1/8
Rope— ...	20%				
Manila, Star	—	111/	111/	111/	111/
,, O. ...	—	107/	107/	107/	107/
Flax, N.Z. ...	—	81/, 88/	88/	88/	88/
Co.nsacks ...	Free				
44-in. ...	—	...	...	12/11	13/6
46-in. ...	—	...	14/9	12/3	13/9
48-in. ...	—	14/3	15/	12/10	14/
Woolpacks ...					
Full ...	Free	5/3	5/3	4/4	5/3
Oils—					
Lins'd, raw	6d.	5/3	N.Z.5/- Eng 5/3	5/6	5/3
Castor ...	Free	5/-	5/6	5/9	5/6
Colza ...	,,	7/9	8/	8/-	7/9
Kerosene	,,	13/9	14/9	13/9	13/9
Turpentine	,,	6/6	7/-	6/-	6/6

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exports exceeded imports by £1,270,944, as compared with an excess of imports of £3,053,851 for the preceding twelve-month, which means an improvement in the financial position of the Dominion of £4,324,795. Butter and cheese cheques are circulating, and wool cheques will begin to circulate from now on. These will ease finance and stimulate trade all round, as the first four wool sales will result in the distribution of a million and a quarter in a fortnight after the sales. With wool, butter and cheese ruling well ahead of last year, the dairy output increased, and with 745,000 more sheep in the Dominion the outlook is distinctly cheerful. Hardware houses are fairly well situated for stocks, and prices have been keeping fairly stable. Metal prices appear more likely to ease than to harden. Galvanised iron has been reduced £1 during the month, and is in good supply. Fencing wire is quiet at present with fair stocks. Nails continue in ample supply and are steady. Bar, plate and sheet iron and steel stocks are adequate. Lead remains fairly easy, and ingot tin is 1d. lower. White lead is unchanged, but is likely to recede a little in sympathy with the metal. Turpentine is easy in America and may come back here before very long. Linseed oil is steady, with very fair stocks held. There is no change to report in other lines.

Dunedin, November 16, 1927.

Trade in general is on the quiet side although the building trade is being steadily carried on—the suburbs constantly showing an increased number of fresh residential jobs. Active operations are proceeding in the central part of the city, where the work of perfecting the base of the new Town Hall up to the level of the main floor is proceeding apace. The installation of a stone sawing and planing plant indicates an early start with the uprearing of this edifice. Two theatres are being proceeded with, each in the central part of the city, and should be completed early in the coming year. The near approach of the Christmas holidays should help to freshen up trade. Already evidences of the festive season are to be seen in the windows of our leading establishments. In regard to prices little alterations on the last month's figures is called for. Galvanised corrugated iron has been reduced to 30/- (from 31/-) for first and to 28/6 for second. Sheet lead is now quoted at 45/- and white lead at 58/- for best brands. In the oil section linseed has been advanced to 5/6 for raw and castor to 5/9.

Brisbane, November 29, 1927.

November has proved a very patchy month to the hardware trade in Queensland, orders from the country have been spasmodic and varied greatly in quantities. However, the continued rainfalls during the month over a widespread area has greatly increased the wheat yield, and created an optimistic feeling in regard to the new year. Nevertheless in the meantime money is very tight, and in order to realise, a good deal of price cutting in many of the smaller lines is going on. But this has got to stop, as many of the lines are being sacrified at bare cost. Heavy hardware has ranged from slow to patchy. Certain lines of heavy girders are in light supply, otherwise stocks are fairly good. Bulk lines are on the quiet side with stocks plentiful on spot and prices unchanged. Builders' ironmongery and materials are slow, and with the exception of certain edifices being erected in the city, the building trade is very quiet. Stocks are plentiful and prices steady. Galvanised iron has been quiet, but no alteration of prices has been noted since last report. Stocks are improving. Painters' materials are very quiet. The demand from both town and country has been very disappointing, consequently stocks are heavy with prices unaltered. Sanitary accessories and materials have been moving freely, and merchants report a very satisfactory month. Prices are unchanged, and stocks well ahead of demand. Fencing wires and station supplies have shown a marked increase, but as stocks are well up to requirements there has been no advance in prices. Woolpacks are slow, most of the shearing now being over until the beginning of March. Prices are unchanged, and stocks ample. Wheat bags have been in strong demand, and merchants report some very satisfactory business. The bountiful rains was a distinct turn up for several firms who had dipped rather heavily on the strength of the earlier prospects. A large shipment has arrived, and prices are easier than they were last month. Glassware and crockery have been slow with stocks heavy, consequently there has been a fair amount of slaughtering of prices, and merchants and retailers are both anxious to quit. Aluminium ware is in heavy supply, and there are a great variety of brands on the market, evidencing a marked difference in quality and prices.

Adelaide, November 30, 1927.

There has been a satisfactory demand for hardware during the month under review. Generally speaking trade is quiet and unemployment prevalent, but hardware sales have been fairly well maintained. On account of the dry conditions galvanised tube has been in demand, and all sizes in merchant lots have changed hands at 56½ per cent. off list. Parcels to arrive during December have sold at as low as 58 per cent. off. Galvanised 200 and 400 gallon tanks have also been in demand at prices ranging from £3/10/- to £5/10/- each. Mild steel rods have been in good demand at list prices, but some alteration can be expected in consequence of the new tariff. Fencing wires and wire netting have been quiet. A small parcel of mild steel standards 1½ x ¼ in. changed hands at £15 per ton ex store. Sheet lead and lead pipe prices are down slightly, and ingot tin closed yesterday at £275 per ton. A parcel of "Wando" turpentine changed hands at 5/6, and English whiting sold at £9. "Lux" carbide sales were at £22. Cement and plaster clearances were fair. The shipping hold-up threatens to disorganise trade, and several secondary industries will be forced to close down, and many partially so, unless matters are speedily adjusted. This latest development coming on top of the lean times experienced by a good many of the industries is a matter of grave concern to business men here.

Melbourne, November 1, 1927.

The past month showed some improvement in hardware sales, a fair quantity of heavy metals changing hands, although in many cases prices were somewhat low. Considerable stocks have been held in Melbourne, but buyers have been unwilling to operate. Some good parcels of iron pipes were sold, examples being: 15,000 feet 3 in. galvanised at 56¼d. per cent. off; 20,000 feet 1 in., and a similar quantity of 2 in. galvanised at 55 per cent. off; 10,000 feet 1 in. black at 62½ per cent. off. An assortment of black malleable fittings was also purchased at 55 per cent. off. Both fencing wire and wire netting moved more freely than for some time past. In 15-ton lots No. 8 galvanised wire brought £16/15/-; while No. 10 reached £17/15/-. Again 10 tons of 14 gauge barbed wire found a buyer at £24; and 5 tons of Waukegan barbed, 12½ gauge, fetched £30, and 12 gauge £22. Sales of netting did not exceed a few miles, the price for three or five miles of 42 x 1½ x 17 being £42, and 36 x 1½ x 17 £36/15/-. Steel plates and bars were offered at moderate rates, a ten-ton parcel of round mild steel, assorted ⅝ and 1 in., changing hands at £15 10/- per ton, a smaller line of ⅞ in. being accepted at £18/10/-. Steel plates of ⅜ and ½ in. thickness were £15. Ingot tin sold during the month at £271 10/-. Building materials showed but little life. No demand was experienced for cement except for

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public works, but Australian factories continue to turn out large quantities. Galvanised iron sold steadily at current rates. An indent parcel of 25 tons corrugated, 26 G, assorted 5 to 10 ft. lengths, was sold at £24/10/- nett on wharf, Melbourne. Paints and oils are not yet selling in any great quantity, due, it is believed, to the financial stringency which exists. The market price is revealed by sales of Champion's white lead, which were made on a £60 basis for 28 lb. and 56 lb. This was in two-ton deliveries. A few chests of shellac were observed to find buyers at 2/7½. Other sales of interest were 5 tons assorted wire nails at £18 basis; 12 doz. Parkes l.h. shovels at 80/- (No. 3); an assortment of copper tube, ⅛ and ¾ in.; 18 G., at 2/- per lb.; Tonks' rabbit traps, 25 doz., at 19/6; and 5 tons black soft binding wire, 14 gauge, at £20. A half-ton parcel of solder, 50/50, went at 1/4⅜. A dozen bales of ore bags, 16 oz., sold at 7/3. Shelf goods are not selling so freely as might be expected at this season of the year. Domestic lines usually boom at the Christmas gift period, but stores report business to be rather dull, certainly less than last year's figures.

The Month's Cablegrams

Copper, Tin, and Silver.—The following table shows the quotations at the undermentioned dates, compared with those of the corresponding periods last year:—

	Copper. Electrolytic. Per Ton.		Tin. Standard. Per Ton.		Silver. Standard. Per Ounce.	
Date.	1926	1927.	1926.	1927.	1926.	1927
	£	£	£ s. d.	£ s. d.	d.	d.
Oct. 31..	66½-67	62⅝-62⅞	295 15 0	261 12 6	24⅜	26 1/16
Nov. 3..	66⅜-67½	63-63½	300 2 6	259 12 6	24⅛	26⅛
,, 9..	65⅝-66½	63½-63⅝	311 15 0	258 8 9	24⅛	26⅛
,, 16..	65½-66	63⅜-64½	315 15 0	262 13 9	27½	26⅜
,, 23..	65-65½	64½-64⅝	313 2 6	264 1 3	25½	26⅜
,, 30..				268 2 6		26⅜
Dec. 3..	64-64½	65¾-66½	314 7 6	269 2 6	24⅜	26⅜

The stocks of tin in the United Kingdom at the end of November were 14,220 tons, the deliveries for the month 2971 tons, the quantity on spot 183 tons, and the quantity afloat 3160 tons.

Lead.—In the London market soft foreign lead on spot has been quoted as follows:—November 3, £20/8/9; November 9, £20/7/6; November 16. £20 16/3; November 23, £21/6/3; November 30, £22; December, £22/17/6.

For the month of October the imports of lead into the United Kingdom were 19.11 tons, including 6254 tons from Australia. The exports were 1469 tons.

Spelter. — The spot quotations for spelter as cabled from London, have run as follows:—November 3, £26/6/3; November 9, £25/16/3; November 16, £26; November 23, £26/8/9; November 30, £26 12/6; December, £27.

Tallow.—Following are the statistics for November and particulars of the latest auction sales:—

November	Casks.	Date	Casks Offered	Casks Sold.	Mutton, Med., per cwt.	Beef Med per. cwt
Imports	1200	Nov. 2	744	744	36/-	36/3
Deliveries	2607	,, 9	891	310	36/6	36/6
Stock	4130	,, 16	609	122	36/6	36/6
		,, 23	625	112	36/6	36/6
		,, 30	725	43	36/-	36/-

Publications Received

Machine Tools.

A leaflet received from Henry Pels, of 32-38 Osnaburgs-street, London, N.W.1., is devoted to that maker's combined plate-splitting shears and punch with bar, angle and tee bevel cropper. With the aid of illustration the machine is fully described.

Household Hollowware.

Walter A. Cox Ltd., of 195 Clarence-street, Sydney, have received from the Welsh Tinplate & Metal Stamping Co. Ltd., Llanelly, South Wales, manufacturers of the well-known "Goat" brand enamelled, tinned and galvanised hollowware, copies of their latest price lists. Two dealing with enamelled ware are handsomely illustrated, and the prices quoted are nett, thus saving much time hitherto taken up in working out discounts. A feature of the third list, which quotes for household tinware solely, is that the products are finished pearl grey inside and out.

Tools of all Kinds.

A new catalogue will shortly be available from Fr. Eduard Engels & Co., of Remscheid-Vieringhausen, Germany, advance copies of which have been received by their Australian representatives, Cheetham & White Pty. Ltd., of Cromwell Buildings, Bourke-street, Melbourne.

This publication has over 300 pages dealing with the extensive range of tools of all kinds which are produced by the issuing firm. It is fully illustrated and well printed, and should prove interesting to the trade as a book of reference in addition to its value to buyers. Seldom is the one firm able to show such a wide variety of tools, covering practically every need of the mechanic or tradesman.

Extensive Municipal Enterprise.

A printed report of the work of the tramways and electricity departments has come into our hands from the corporation of the city of Wellington, New Zealand. It covers the year ended March 31 last and contains abstract statements of receipts and expenditure as well as the reports proper. That these services are now of considerable size will be seen from the fact that the revenue for the year under reviw was £740,599, being £453,688 on tramways account and £286,911 on electricity account. The tramways, it will be understood, are operated by electricity, and the distinction shown above is only a matter of convenience. Besides running the tramways electrically the municipality supply current for lighting—public and private.

Mr. M. Cable, M.I.E.E. is the general manager.

Australian Statistics.

The Official Year Book of the Commonwealth of Australia for 1927 is the twentieth of the series, and is uniform in size and colour with those of recent years. A stiff-covered volume of close on 1100 pages 9 x 6, it covers statistically the fiscal year 1925-26, and like its predecessors uses graphs and maps rather freely in the presentation of facts. In amended, and extended form much of the old matter is repeated, but there are several new features, although none of these is of direct trade interest.

Prepared under instructions from the Minister of State for Home and Territories by the Commonwealth Statistician and Actuary (Mr. C. H. Wickens), the book was edited by Mr. John Stonham, M.A., assisted by another officer of the department, Mr. H. J. Exley, M.A.

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Australian Market Prices

N.B.—The prices given in these columns are mostly those at which wholesale merchants are prepared to supply ordinary parcels to storekeepers, or other retail dealers. In a few cases we give the quotations of manufacturers or their agents. Preference as well as general duties are shown in the "Duty" column. The first rate is that on goods from the United Kingdom, and the second is the general rate on goods from foreign countries. "F" represents free, and "F 10%" free from the United Kingdom and 10% from other countries.

	Duty	Sydney Nov. 29	Melbourne Dec 1	Adelaide Nov. 30	Brisbane Nov. 29
Pig Iron	2/. 40/	£	£	£	£
British		...	7 5/	7 10/	...
Swedish		...	...	...	...
Lithgow		7 10/	7 5/	..	...
Newcastle		7 10/	7 5/	7 10/	...
Bar and Rod	44/, 120/	23 basis	English 21	21	22/10 basis
Australian		...	18/6	17 10/	...
Mild Steel	44/. 120/				
Bar		19 10/basis	19/ basis	18 10	18
Angles		19 10/	18	19	19
Tees		21	18	20 10	20
Hoops	F., 10%				
Black		20 basis	19 basis	19/6	21/ basis
Galv.		31/6 basis	35	33/6	31 10/
Galv. Corr. 24g.	20/, 60/	30/]	29 10/	28 15/	
Orb 26 g		28	30	27	27 5/
,,		27 10/	30		28 15/
Adams Mars		...	...	..	...
Phoenix Cr.		26	30	28 15/	28 15/
Galv. Plain 24g.	20/, 60/	30/]			
Queen's Hd.		23	31	31 15/	29
Phoenix Cr.		28	33	...	...
Fleur-de-lis		27 10/	...	31 5/	28 15/
Other		...	30	...	40
Sheet	F., 125/				
Black		26 basis	25 basis	26	26
Baldwins		B26, G34 5/ basis	26 10/	...	19
Plate	F., 120/	18 basis	15 basis	15	15 10/
Steel		19/6	21	19	20/-
Girder					
Fencing Wire	F., 120/				
American 8		18 5/	18 5/	..	..
,, 10		19 5/	19 5/	...	...
Austra'n 8 Bl.		15 12/6	15	15 10/	15/10
,, 10 ,,		16 12/6	15 10/	16	16/10
Galv. 8		17 17/6	16 10/	17 10/	18
,, 10		18 17/6	17 15/	18	19
,, 12		20 2/6	18 10/	20	20
Barbed Wire,	68/, 180/				
Amern. 12-g.		24	...	...	25 10/
,, 14-g.		25 10/	...	...	26 10/
Austn. 12-g.		24 10/	22 10/	24	25 10/
,, 13-g.			23 10/	25	26 10/
,, 14-g.		26	24 10/	26 10/	26 10/
Wire Netting	F., 200/				
36 x 1½ x 17	per. ton		36 15/	28	
36 x 1½ x 18			29	50	New
42 x 1½ x 17			49 10/	..	List
42 x 1½ x 17		22½% to	41 10/	42	
42 x 1½ x 18		25%	34	33 10	
36 x 1½ x 17		off	35	...	10 to 15%
36 x 1½ x 18		list	28		Off List
36 x 2 x 18			22 10/	23	20%
36 x 2 x 19			20	20 15/	Off List
Nails—					
Horshoe	12/, 15/	Less 5%	to 1/lb.	1/ less 10%	List Price
,, Austn.		...	List	...	plus 5%
Wire	5/6, 8/				
,, Austn.	or25%,35%	28/6 basis	18/ to 20/	24/6 to 35/	30/- basis
Roofing—	5/6, 8/			...	
Evenden		74/6 cwt.	65/cwt., 9/6	9/-	11/
Lead-head		...	...	...	44/
Block Tin	Free	274	280	275	3/
Tin Plates, 28 x 20—	F., 10%				
I.C. Coke	28 x 20	112's 60/-	50/	112's 52/6	27/
I.X. Coke	56s	35/-	70/	...	42/
Pig Lead	Free				
Austn.		25/6	25	32/	37/10
Sheet Lead	10%, 20%	40/	50	43/6	49/
Dampcourse					
2 lb.		4½" 6/6	48		
3 lb.		4½" 9/9	47		
Lead Pipe—	10%, 20%				
½ to 2in. coils		45/	47 10/	46 5/	59/
Lengths to 5'		47/	52	48 15/	60/
Compo. ⅜" up		51/	51	48 10/	72/
Copper—					
Ingots		...	70	78/	10d.
Sheet	25%, 40%	1/5½	1/7	1/8	1/8
Brass					
Sheet	25%, 40%	1/3	1/2 to 1/6	1/6	1/6

	Duty	Sydney Nov. 29	Melbourne Dec. 1	Adelaide Nov. 30	Brisbane Nov. 29
Zinc—		£	£	£	£
Sheet 9 to 18g (7 x 3 & 8 x 3)	25% 40%	60/	62 10/ to 65	67/	65/ cwt.
Perforated	35%, 45%	4/9	7	...	5/6
Spelter	10%, 20%	32	...	54/	...
,, Elec....		301/10/to 37	41 to 42	...	40/
,, Brazing	25%, 40%	1/9	1/5	...	1/9
Bolts & Nuts—		⅜" ½" ⅝"	⅜ ½ ⅝		
Cuphead 3"		75/, 59/	63/ 47/ 41/		
,, 4"	35%, 50%	76/, 57/	61/ 46/ 39/	...	26/3 to 73/
,, 5"		70/, 54/	56/ 43/ 37/		
,, 6"		65/, 49/	52/ 39/ 35/		
,, 6½" to 9"		61/, 47/	49/ 38/ 34/		
,, 9½" to 12"		59/, 45/	47/ 36/ 32/		
Tanks, 400-gal.	Free	6 10/	4 15/		5
,, 200-gal.		3 10/	2 5/		3
Tubing—	F., 10%				
Black, up to 3"		55 off list	55% off	58½off	List 45% off
" 3½ & up	27½		60% off	35 off	.. 5% on
Galv. up to 3"		50 ,,	45% off	46½off	.. 35% off
" 3½ & up	27½	...	tst. List	20 off	Less 5% off
Steam, up to 3"		40 ,,	37½% off	37½off	.. 5% on
" 3½ & up	27½	...	5% off	20 off	.. 25% off
Wr'ght boil.		...	10% on	..	.. 15% on
Explosives—	F., 5%				5/
Hall's C.C.	10%	1/-	10½d.	1/-	1/1
Curtis's		10½d	10½d.	11½	1/
Chilworth's		10½d.	10½d.	...	1/1
Sporting	15%, 25%	3/6, 4/6	2/9 to 4/6	3/6 to 4/11	3/6 to 5/
Diam. S'less		10/	8/ to 8/6	8/3 to 8/6	5/
Amberite		8/6	7/ to 7/6	6/9 to 7/6	75/
Blast'g Gel.	F. 5%	72/6	74/6	74/6	78/6
Gel. Dyna.	...	65/	66/	66/	71/-
Gelignite	...	56/ to 59/3	56/ to 59/3	54/6 to 58/6	62/ to 65/
Dynamite	...	51/ to 57	51/ to 57/	46/6 to 51/6	...
Detonators	15%, 25%	55/	55 to 60/	60/ to 85/	58/ to 102/
Shot—Chilled	5/, 6/	63/6	61	75/	90/
Australian		61/	56	...	...
Cyanide Pot.	Free	1/4	1/6	...	1/6
Quicksilver	Free	7/6	5/	5/8	9/-
Sash Weights	35%, 45%	15/	22/6	16/6	18/6
Sheep Shears	F., 10%	62/6	62/6	60/	60
Cement—Impt'd	20%, 30%	25/ cask	21/	21/-	21/ cask
Aust. (bags)		...	17/6	7/-	6/6 bag
Plaster, Imp.	1/6, 2/c	37/6 K.W.	35/	47/6	50/ cask
,, Aust.		Pixie 35/-	8/	9/3	18/ bag
Slates (20 x 10)	30%, 40%				
White Lead—	8/, 10/, or				
Imported	25%, 30%	63/	65/	70/-	67/
Australian		57/	56/	62/	62/
Zinc White	20%, 30%	...	70 to 100	...	72/, to 80/
Oils—					Colonial 56/
Linseed (raw)	9d., 1/		Drs.,		
Imported		R5/6	5/6	Drs., 5/9	5/3
Australian		C4/8 D5/8	C., 4/11	Drs., 5/6	4/10
Colza	6d., 8d.				
Burning		...	6/-	...	
Castor—	9d., 1/				
½-cases		C 6/3	6/3	6/9	7/9
China	2s., 2/6	...	8/	...	...
Cotton seed	6d., 8d.	..	8/6 to 10/	...	10/
Kero.—C.O.R	Free	...	13/	...	...
Laurel		13/	13/6 to 14/6	13/	12/6
Light of Age		13/	13/6 to 14/6	13/6	12/6
Pennant		13/	13/6 to 14/6	13/	12/6
Turpentine	F.,	5/6	5/9	6/-	6/-
Substitutes	½d., 1d.	3/	18/ per case	...	2/6
Shellac		3/3	3/-	2/8	3/-
Whiting—	6d., 9d.				
English		9/	9/-	9 10/	£12 ton lots
Colonial		4/9	4/9	5/	...
Resin, G grade	Free	38/6	36/-	36/	37/6
Carbide—	80/, 150/				
"I X L"		32/6	27/6	29 5/	29, 7/6
Scandinavian		34/-	30/-	33 10/	33
Canadian			...	...	...
Japanese		...	...	...	...
Bluestone—	100/, 200/				
Macclesfield		37/6	37/6	...	40/
Australian		36(1 cwt c/s)	...	37/6	...
Japanese		...	...		
Stock. Tar, 42 g.	25%, 35%		1/5	60/-	
Woolpacks—	Free	...		...	...
42 x 11½			6/	5/9	...
54 x 11½		4/4½	4/6	4/9	4/9
Cornsacks—	Free				
2½ lbs. (Oats)		...	...	...	...
2½ lbs		10/1½	12/6	11/6	10/9
Branbags	Free	12/7½	10/6	8/6	10/7

Small buyers requiring credit for broken parcels must expect to pay more than prices here quoted.

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Business Register

If you correct them monthly by these pages you will have lists more up-to-date than any Directory. Some leading firms do this.

New South Wales

Firms Registered.

H. C. Vivian & Co., general ironmongers, 24 Fitzmaurice-street, Wagga Wagga; proprietors, Horace C. Vivian and William J. Bance.

P. M. Monnox & Son, general storekeepers, Kentucky; proprietors, Patrick M. Monnox and Ellis M. L. Monnox.

Russell's, crockery and glassware dealers, 706 Darling-street, Rozelle; proprietors, Francis J. Russell and Beatrice I. Russell.

New Reliance Metal Co., brass founders, 50 Chelsea-street, Redfern; proprietors, Thomas Kearns and Leo. Gross.

J. Ellis & Co., brassfounders and engineers, 5 Nicholson-street, Woolloomooloo; proprietor, James Ellis.

J. & N. F. Jones (Beehive Stores), crockery and kitchenware dealers, 369 King-street, Newtown; proprietors, John Jones and Norman F. Jones.

Victa Co. (temporary), manufacturers of hardware and electrical goods, c/o. Empire Express, 11 Queen Victoria Markets, York-street, Sydney; proprietors, Archibald Johnston and Henry H. Glover.

Edgar Ryves & Hawker, engineers and agents, Kembla Building, Margaret-street, Sydney, and Melbourne, Victoria, announce that William A. Richardson has become a member of the firm.

Company News.

McRae's Ltd. have been registered with a capital of £20,000 in £1 shares. Objects: To carry on the business of general storekeepers at Uralla. Subscribers: Francis L. D. McRae, Alice McRae, Mary J. Moffatt, John McIntyre, Martha A. McIntyre, Mabel Pearson and Willian H. McBean. Registered office: Uralla.

Kernerator & Wall Bed Co. of Australasia Ltd. have been registered with a capital of £10,000 in £1 shares. Objects: To acquire by agreement the business carried on under the style of The American Portal Wall Bed Co. Subscribers: Henry I. Gregory, Mollie J. Collingridge, Ernest Saker, Rhoda Freeman, Christopher G. Madell, Bernice V. Gregory and Roy A. Saker. Registered Office: Sydney.

New Zealand

Company News.

Wheeler & Thompson Ltd. have been registered with a capital of £1400 in £1 shares. Objects: To carry on business of plumbers and tinsmiths, metal workers, etc. Subscribers: E. Wheeler and T. Thompson. Office: High-street, Rangiora.

George McArthur & Sons Ltd. have been registered with a capital of £1500 in £1 shares. Objects: To carry on the business of dealers in steel roller doors and shutters and general incidental. Subscribers: G. McArthur, E. H. Reid and G. S. Renner. Office: Thorndon Quay, Wellington.

Collinson & Sons Ltd. have been registered with a capital of £20,100 in £1 shares. Objects: To carry on the business of manufacturers and importers of and dealers in ironmongery, turnery, china, leather goods, and general incidental. Subscribers: H. C. Collinson and Hazel Collinson. Office: Palmerston North.

Queensland

Firms Registered.

Higgins & Bourne, general storekeepers, Goomeri; proprietors: Leslie I. Higgs and Joshua G. Bourne.

L. M. Turner & Co., tool makers, etc., Logan-road, South Brisbane; proprietress: Lina M. Turner.

Company News.

Daniel Shepherd & Sons Ltd. announce that the company is being wound up voluntarily, and that Henry P. Shepherd, merchant, Mackay, has been appointed liquidator.

Barclay & Haythorne Ltd. have been registered with a capital of £2000 in £1 shares. Objects: To carry on the business of plumbers, engineers, founders, smiths, machinists, manufacturers and patentees, etc. Subscribers: Theo J. Bale, Arthur W. Bale, Eric A. Bale, Frederick Ingram, John Warnock, Alexander H. Barclay, and Stanley Haythorne. Registered Office: Turbot-street, Brisbane.

South Australia

Firms Registered.

K. C. Ockenden & Co., general storekeepers, Balaklava; proprietors: Katherine Clare Ockenden and Edward Charles Diekman.

H. C. Ewer & Co., general hardware merchants and indent agents, 31 Bower Buildings, Charles-street, Adelaide; proprietor: Harrold Clifford Ewer.

Company News.

F. J. Brockhouse & Co. Ltd. have been registered with a capital of £20,000 in £1 shares. Objects: To carry on the business of general engineers, iron and brass founders, enamellers, electroplaters and workers in all kinds of metal, etc. Subscribers: Frederick James Brockhouse, Frederick Walter Brockhouse, David Charles Fendly Brockhouse, Walter William Robinson, and Alick Stephen Robinson. Registered office: Magill-road, Norwood.

Metal Sprayers Ltd. have been registered with a capital of £24,000 in £1 shares. Objects: To enter into an agreement with the Alumino-Thermic and Metal Sprayers Ltd., and to carry on the businesses of metal sprayers, iron masters, colliery proprietors, engineers, iron founders, etc. Subscribers: Alfred Jabez Roberts, James Counsell, Sir Frank Beaumont Moulden, Herbert Gill Williams and George McEwin. Office: 65-67 Waymouth-street, Adelaide.

Tasmania

The National Portland Cement Ltd. have been registered with a capital of £600,000 in £1 shares. Registered office: Melbourne, Victoria.

Victoria

Cochrane & Scott, range and stove manufacturers, 280 Lonsdale-street, Melbourne, announce that George Christopher Scott has retired from the firm.

Firms Registered.

Simpson & Carroll, engineers, brassfounders and finishers, Nicholson-place, off Little Lonsdale-street, Melbourne; proprietors: Thomas Edward Simpson and Albert Edward Carroll.

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M. Drolz & Sons (Charles Joseph Drolz and Frank Matthew Drolz), engineers, Preston, have dissolved partnership by mutual consent. C. J. Drolz is the continuing member and will receive and pay all debts.

Company News.

Non-Drip Taps Pty. Ltd. have been registered with a capital of £10,000 in £1 shares. Subscribers: William Sadler, Arthur Edward Kirk, Edward Leo Rohan, Amy Agnes Rohan and Stanley Johnson.

Machine Tools Pty. Ltd. have been registered with a capital of £5000 in £1 shares. Subscribers: Walter Moss Sweeney, Mary Isabelle Loftus and Magnus Victor Anderson. Office: 12 Villiers-street, North Melbourne.

John Shearer & Sons (Vic.) Pty. Ltd., machinery manufacturers and general engineers, etc., have been registered with a capital of £100,000 in £1 shares. Subscribers: John Shearer, John Albert Shearer, and Alwyn Huxley Shearer. Thomas Leslie Shearer is also a director. Registered office: Bendigo.

The Victa Co. Pty. Ltd. have been registered with a capital of £5000 in £1 shares. Objects: To acquire as a going concern the business of hardware manufacturers carried on at 286 Little Collins-street, Melbourne, under the style of "The Victa Co." Subscribers: Henry Heath Glover and Archibald Johnston.

Irvings Pty. Ltd., general merchants, ironmongers, etc., have been registered with a capital of £25,000 in £1 shares. Objects: To acquire as a going concern the business carried on under the style of "Irvings." Subscribers: George Veitch Steele and Lucie Jane Steele. Registered office: Murphy-street, Wangaratta.

Western Australia

Mr. John Gordon has purchased the business, at Northam, of Kennedy Bros., grocers, ironmongers, etc.

E. & L. Hooper, general storekeepers, Baker's Hill, have been registered under the Firms Act; proprietors: Edgar Owen Hooper and Lloyd Llewellyn Hooper.

The Broken Hill Proprietary Co. Ltd., iron and steel manufacturers, have opened a branch in Western Australia, with offices in St. George's House, Perth.

Travellers

In New Zealand.

Mr. Percy A. Lyttle, of Walter A. Cox Ltd., 195 Clarence-street, Sydney, left for Auckland by the s.s. "Marama" on November 30 with a full range of samples on behalf of the various manufacturers represented. About four months will be spent in the Dominion, and Mr. Lyttle's address in each of the main centres will be care of the New Zealand Express Co. Ltd.

In Queensland.

Mr. Walter A. Cox and Mr. F. L. Westaway, of Walter A. Cox Ltd., 195 Clarence-street, Sydney, will be in Brisbane during the latter part of November until about the middle of December displaying samples on behalf of their various principals. Inquiries may be addressed to them at the Commercial Travellers' Club, Elizabeth-street, Brisbane.

In South Australia.

Mr. F. L. Westaway, of Walter A. Cox Ltd., 195 Clarence-street, Sydney, leaves for Adelaide and Perth on December 30 on a business trip on behalf of his firm. His address while in both States will be care of the Commercial Travellers' Club.

In Tasmania.

Mr. Albert Adams, of 277 Clarence-stret, Sydney, who was in Melbourne in the interests of his principals from November 19 to 30, is now visiting Tasmania.

From Europe.

Mr. J. K. Merritt returned to Melbourne on November 14, after an extended trip abroad. He was accompanied by Mrs. Merritt and Miss Dorothy Merritt, and Mrs. C. E. Campbell, a married daughter, joined the party at Colombo on the homeward journey.

Mr. C. O. White, of Hardware House, Post Office-place, Melbourne, returns by the R.M.S. "Orama" on December 19 from an extended tour of Great Britain, France, Italy and Switzerland. He is accompanied by Mrs. White, and the trip has been one of busienss and pleasure combined.

Mr. W. G. South, of W. G. South & Cowan Ltd., 352 Kent-street, Sydney, returned on November 14 from a visit to England and the Continent. His travels were in the interests of his firm and he secured the Australian and New Zealand representation for the Royal Crown Derby Porcelain Co., England, stocks of whose ware will be displayed early in January.

Mr. Howard Bird, managing director of the Consolidated Pneumatic Tool Co. Ltd., London, a company engaged in the production of engineering equipment, reached Sydney by the S.S. "Marama" on November 15 from New Zealand. Mr. Bird is visiting Australia as part of a world tour with business as its object. He is much interested in the erection of the Sydney Harbour Bridge, since the pneumatic tools used in its construction were made by his company.

Agents and Agencies

Mottershead & Phillips, of Australia House, Carrington-street, Sydney, have been appointed Australasian agents for John Tams Ltd., semi-porcelain manufacturers, Longton, Staffordshire, England.

Mr. C. O. White, of Hardware House, 386 Post Office-place, Melbourne, is now the representative of the Constructional Engineering Co. Ltd., Titan Works, Birmingham, manufacturers of foundry equipment and special installations.

Jones & Joseph Ltd., of 235-39 Clarence-street, Sydney, are the Australian agents for Lynenwerk Cable-Eischweiler Kraachen, Germany, manufacturers of various kinds of cable, samples of which are being shown. Their chief manufactures are V.I.R. cables and flexibles, and lead-covered wire, in a very extensive range of sizes.

Cheetham & White Pty. Ltd., of Melbourne, have been appointed agents and distributors for the Three-S-Co. flushing cisterns, the patentees and manufacturers of which are the Simes Scientific Supplies Co. Pty. Ltd., of Meaden-street, South Melbourne.

Since this cistern was placed on the market additional features have been added, and improvements in several points have been introduced by the patentees. It was originally designed to meet the insistent demand for a noiseless appliance at once economical in water, swift in action, and moderate in cost. Departing altogether from the old methods of flushing, this cistern can be regulated with precision to give any output from a half-gallon or less up to full capacity, by the simple adjustment of one small screw. It will flush when only partly filled, and will only permit its predetermined flush output, and re-fill to its correct height, without waste. Even the fastening down of the lever will not affect this principle. The flushing speed is reduced to 3½ seconds, and it operates without noise.

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Machinery

New Micrometer.

A new micrometer, designated as the No. 11, has recently been placed on the market by the Brown & Sharpe Manufacturing Co., of Providence, R.I., U.S.A. It is desigined especially for the measurement of odd-shaped pieces having projections and recesses.

A feature in the adjustment for wear on its measuring surfaces, which is said to be quick and positive, and when made is securely locked. There is nothing to slip or loosen.

The opening in the frame is enlarged by an improved shape of the frame at its anvil and spindle ends, thus making possible many measurements not obtainable with the usual type of micrometer. The small size of the frame at its anvil end is also said to promote measurements in narrow slots. The increased width, inside the frame, accommodates odd-shaped pieces having projections and recesses. The instrument is claimed to be accurate in workmanship

These manufacturers are represented in Australia by Mr. Howard F. Hudson, of Sydney and Melbourne.

Miniature Wrench Set.

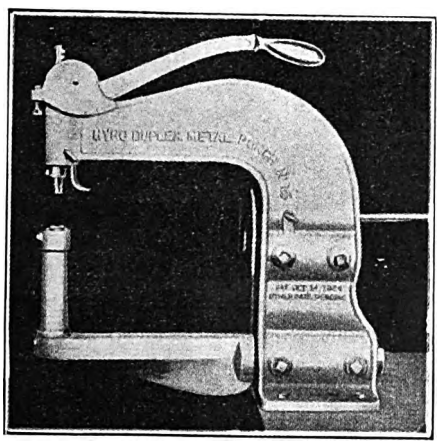
The Bonney Forge and Tool Works, of Allentown, Pa., U.S.A., provides a set of miniature chrome-vanadium wrenches, neatly packed in a leatherette roll.

The kit, designated as the No. 20, consists of five double-end wrenches with openings ranging from $\frac{1}{16}$ in. to $\frac{13}{32}$ in. They are guaranteed to be stronger than the nut or bolt of the size they fit.

The manufacturers are represented in Australia by Mr. E. E. Mayo, of 209a Castlereagh-street, Sydney.

Fixture Punch.

The Hydro Manufacturing Co. Inc., of 350 West 13th Street, New York, N.Y., U.S.A., have introduced an improved fixture punch known as the No. 18



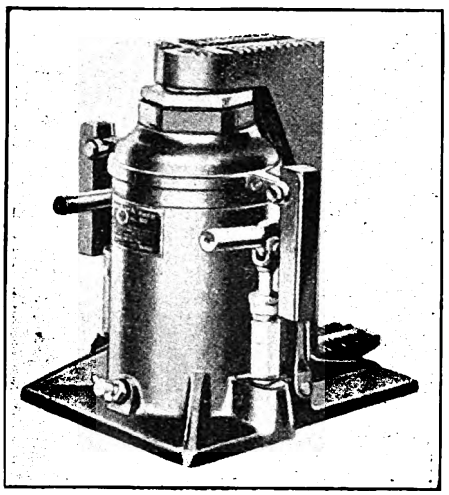
Duplex Metal Punch. It was designed for punching 14 gauge steel or lighter and can also be used for inserting eyelets, slip rings, and other hollow work.

Stock sizes of punches and dies are furnished in nineteen sizes, ranging from $\frac{1}{8}$ to $1\frac{1}{16}$ in. diameter. Irregular shapes can be punched by using special dies made to specification. A guard is used to strip the work from the punch when the handle is raised.

The illustration shows the arbor inserted in the lower opening of the frame to accommodate deep pans, channels and other similar irregular fixtures.

Hydraulic Jacks.

The Blackhawk Manufacturing Co., of Milwaukee, Wis., U.S.A., announce a line of hydraulic jacks using oil as a lifting medium, in sizes from $1\frac{1}{2}$ to 50 tons. The design is said to permit operation in cramped places and to give greater power and less effort in raising a load. The full stroke of the pump is unnecessary.



The pump unit and ball check valve are built on the outside of the jack, where they are easily accessible. The release valve is entirely separate from the pump, so as to prevent accidental lowering. By turning the release valve the operator can lower the load fast or slow, thus giving positive control at all times. In fact, control is said to be so positive that the jack can be raised within 0.001 in. of the desired point. To prevent the plunger from being raised beyond safe limits a by-pass is provided.

The heavy-duty jacks are equipped with two pumps —one a low pressure feed pump to raise the plunger quickly to a point of contact, and the other a high-pressure pump to carry the load. Even the heaviest model is light enough to be easily transported by two men. The jacks can be operated in a horizontal position when the pump is on the down side; in this position they can be used for forcing or bending.

The complete line consists of ten models in nine capacities. The automotive models include single and double lifts for light and heavy duties, while the industrial models range from 18 to 60 tons capacity.

Anti-Friction Belt Idler.

The Link Belt Co., of 910 S. Michigan Avenue, Chicago, Ill., U.S.A., are responsible for an anti-friction belt conveyor idler. The roll incorporates Timkin tapered bearings totally enclosed. One of the outstanding features is the protection afforded by a labyrinth grease seal mounted in a grease cup. This also serves as an outboard reservoir and lubricates the bearing on the outside as well as on the inside. The rolls are mounted on a self-cleaning T-base, and all three are interchangeable for any position. The frame is strongly riveted. The idler rolls are supported in malleable iron brackets having large bearing surfaces, and so constructed as to support the ends of two adjacent rolls. Idler rolls are made in various standard lengths to suit standard widths of belting.

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Big Melting Pot.

The Harold E. Trent Co., of 439 North 12th Street, Philadelphia, Pa., U.S.A., have recently added a melting pot of 750 lb. capacity to their line of melting pots. Intended for melting babbit metal for large bearings, the pot has a pouring spout and tilting mechanism, and is furnished with a complete automatic temperature control apparatus.

The design follows closely that of the standard Trent pots, in that it has a special cast iron crucible and a steel casing with heavy insulation between. The tilting mechanism is operated by a hand-wheel that drives through a worm gear. The pot is easy to tilt, yet positive in action.

The temperature control device is so placed that it functions irrespective of the position of the pot. The pot is arranged for operation on single, two, or three phase circuits.

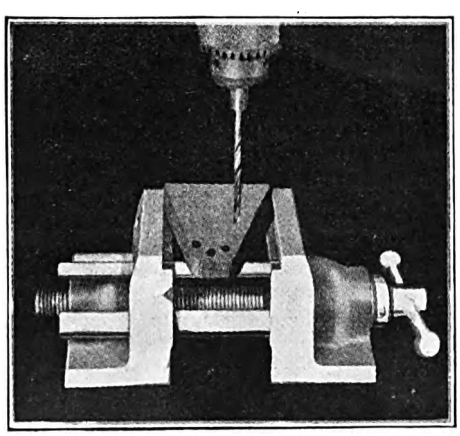
New Sander.

A direct motor-driven sander of light weight has been introduced by the Chicago Pnuematic Tool Co., of 6 East 44th-street, New York, U.S.A., for uses such as finishing automobile bodies.

The motor is of the squirrel cage induction type without commutator or brushes, and operates on a frequency of 180 cycles per sec. and 230 volts 3-phase. The rotor speed is reduced by means of spiral-bevel gearing, which also brings the driving spindle at right angles to the rotor shaft and body of the tool. Two handles projecting at 80 deg. to each other in a horizontal plane afford convenient means for controlling the position and pressure required. The cable enters through one of the handles, and the switch is located near this point. The pad is carried by the spindle at a high speed. The total weight is 13½ lb.

Four-Point Drill Vyce.

To facilitate the handling of regular and irregular shapes, Demco, Inc., of 105 Calvert St., Baltimore, Md., U.S.A., have designed a 4-point drill press vyce.



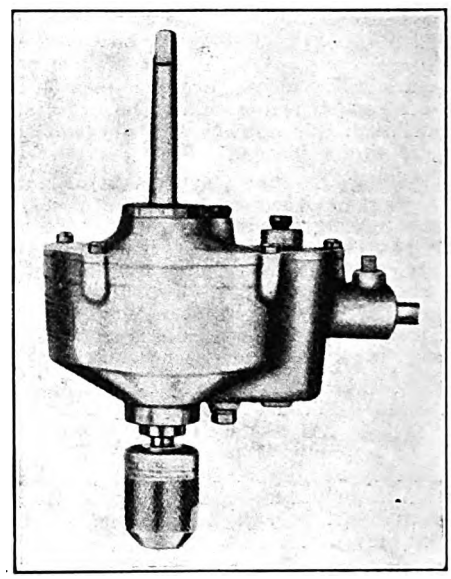
The vyce is milled on all four sides and the ledges in the jaws are parallel. The tops of the cross-rods are in the same plane as the jaw ledges and are easily removed. The jaws are made of semi-steel and the guide rods and screws are of steel.

The vyce holds the work at all times with three points of support and, in many cases, four points. It is claimed that as a minimum amount of holding pressure is employed the work is not distorted. The screw is 1½ in. below the ledges in the jaws, and the guide rods 1¼ in. below, thus preventing injury from the drill point. There is no base to the vyce and, therefore, no chance of chip clogging.

The device is made in two sizes, Nos. 4 and 8. The former has jaws 4 in. wide and a gap of 4 in., while the latter has jaws 8 in. wide and a gap of 8 in.

High Speed Tapping Attachment.

The Caskin Tube & Tool Co., of 594 Johnson Ave., Brooklyn, N.Y., U.S.A., are marketing the No. 2 "Ettco" high speed tapping attachment. This tool has a capacity of ⅜ in., and is designed for high speed sensitive tapping.



The leather-lined cone clutch and cast iron driving cone have a smoothness of action and a slipping point that are said to eliminate tap breakage, even when the tap hits the bottom of the hole or sticks when entering or backing out. The operator can control the feed of the tap, regardless of the speed of the drill spindle by means of the drill press lever. The reverse speed is twice that of the forward speed.

Left-hand threads can be tapped as readily as right-hand if the threaded Morse shank is locked in the tapper.

An aluminium case and light alloy steel parts reduce the weight of the tool so that it can be applied to light drill presses. All journals are hardened and ground, and run on bronze bearings. It is claimed that in many cases this tool will increase production from 100 to 500 per cent.

Positive Pump Oilers.

The Plews Oiler Co., of 405 Boston Block, Minneaposlis, Minn., U.S.A. have developed a line of positive pump oilers, made in six styles and sizes ranging from ¾ pint to 1 quart in capacity. They are said to positively pump light or heavy oil in warm or cold weather, and will exert a pressure of 100 lb. per sq. in. at the spout.

The cans are made of copper-plated steel, and the pump action is controlled by a thumb lever mounted on top of the handle. No valves or washers are used in this pump, nor does it rely on air pressure or suction.

The pump action is by telescoping tubes with ball valves in the bottom of both moving and stationary tubes. Upward movement of the outside sleeve forces oil into the upper chamber, which is constantly kept filled by the ball check valve. The position of the outside movable tube is such that the can may be practically empty before the pump will cease to function. The quantity pumped can be controlled as desired.

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Electroplate and Cutlery

Buyers' Notes for Retail Dealers

Sydney

Briscoe & Co. Ltd., of 383-85 Kent-street Sydney, are making a display of German metal ware, including oxidised silver jardinieres, fruit stands, and similar articles, standing on pedestals. The frames contain handsome cut glass bowls, the appearance being pleasing.

The new oval and oblong entree dishes make an effective display, and are said to be selling well. Glass salad bowls and biscuit barrels, with e.p.n.s. mounts are in wide assortment, cake baskets are in oblong and square shapes, and without or with bases, the latter being popular.

Noticeable are the squat shaped, three-piece tea sets on trays, suitable for presentation purposes. These are suported by a good selection of squat and can-shaped teapots and hot water jugs.

Cases of teaspoons and tea forks are in wide assortment, a novelty being a combined fork and knife. Water jugs are in great profusion. Seasonal are the child's sets, containing knife, fork, spoon, and serviceable ring.

Canteens of cutlery maintain their popularity, and handsome cases filled with good quality articles are said to be in demand. Plated knives and forks are set with coloured handles. Carvers by Wade & Butcher are suitable for presentation purposes, the knives being mirror finish and the forks of stainless steel. They are supplied with the new sharpener or steel, as demanded, and square or round handles.

Country pattern pocket knives should make an acceptable present for man or boy. They are supplied on cards of eight.

The "Big Ben" "Baby Ben," and "Ben Hur," of Westclox production, are now made on bases, giving these popular timepieces the appearance of good-style bedroom clocks.

The "Flic" is the name given to a German razor, supplied in ⅝ and ¾ in. width of blade, and having mottled handles.

Edwards, Dunlop & Co. Ltd., of 123 York-street, Sydney, have opened up large stocks of pocket knives of English and German manufacture, sold in half-dozen lots. Ladies' knives are sold in assorted coloured handles. Rodgers' high quality pocket and table and dessert knives are available in large numbers. Scissors from the same makers are sold loose and also boxed in assorted sizes. Smokers' stands are supplied in oxidised silver. Metal photo. frames are in wide assortment, some arrestive designs being on view. Manicure and companion sets are in grand array, and shaving outfits are fitted with revolving mirrors, and have a socket for the soap dish and a bracket to hold the brush. Large sized fruit dishes are encased in perforated E.P. frames. Salad bowls are footed on high stems.

Farleigh, Nettheim & Co., of 80 Clarence-street, Sydney, have on hand a large assortment of cutlery, including table and dessert knives, made of Firth's stainless steel, by Gregory & Co., of Sheffield. A dozen polished scissors to the card lend themselves to display purposes, and smaller sizes are sold loose. Made in Europe, the "Stork" scissors have taken well the last year or two, the beak being extended to make the blades. A cheap pocket-knife bears the name "Bentima," and since its introduction last year has become a good seller. The handle is of imitation tortoise shell. The big blade is magnetised and a pipe cleaner runs along the back. Other features are a corkscrew, glass cutter, and pattern tracer, a coin tester, and a cigar cutter. Another favourite is a boy scout knife with two blades, screw driver, tin opener, rope splicer and swivel for attaching to the belt. The knife has a brown composition handle. A four-bladed knife is also available. A two-bladed knife that should have a wide appeal has a mother-o'-pearl handle, bordered by steel. A corkscrew is attached. The old favourite "slash" knives have three blades. Four inch knives by Richantz Bros. & Sons are of extra good quality. To catch the eye are knives of red, white, green or blue handles, a dozen on a card.

A small nickel bedroom alarm clock has a surprisingly large and loud sounding bell.

W. S. Friend & Co., of 113 York-street Sydney, are making a big display of pyrex casseroles on E.P. stands for serving at table. Being handsome articles, the stands are also useful for cake dishes.

Cutlery is in exceptionally wide range, prices ranging from very low figures up to the higher for the more elaborate sets. The firm hold the N.S.W. agency for Thomas Turner & Sons., and large stocks of cutlery, spoons and forks are on hand. The stainless dessert and table knives by Thomas Ibbotson & Co., make a fine display and the Burns' bread knife is given prominence. Other bread knives include the "Lightning," with black riveted handle, the "Encore," with carved handle; the "Victor," and the "Climax."

A splendid display of E.P. ware is made, high-class stocks from Anstey & Wilson being shown. Dixon's makes are also well to the fore, as are cheaper grades. Neat in appearance are the three and four bottle cruets; and a wide assortment of salad bowls, decorated with coloured landscapes, are very fine. Nut dishes have fancy perforations. A wide assortment of vases are on view. Bread platters are mounted with plain and ornamental borders, and are supplied with or without knives. A sugar basin, with sifter, stands on knob feet, and plain square tea sets are very attractive. Tea sets are in covered or open styles. Egg cruets are in variety, and may be had with spoons on round plate with flared edge, or on square frame. Tea and coffee sets with nickel handles are noteworthy.

Mounted on polished silver, jam dishes, honey and jelly pots in coloured glass make an attractive line. Plain finishes, however, predominate. Silver serviette rings are supplied in boxes of six. Cut glass salad bowls, bearing floral and fruit decorations, are handsomely mounted on polished silver pedestals. Toast racks are in three, four and six bar styles.

Sparklets are on hand in two sizes, and should prove a popular line through the summer season.

Grimley Ltd., of Monarch House, Broadway, Glebe, Sydney, are displaying stocks of table ware by Ball Bros., made from a new stainless alloy. The line is said to be a ready seller, and the E.P. spoons and forks are sold on a ten years' guarantee. A speciality is made of Frank Mills's products. A two-blade skinning knife, with a brass handle and a castrating knife, made of extra quality steel, are good value at the selling price.

Lockwood Bros. furnish double and single-blade pocket knives of good quality, and a useful scout knife comes from A. W. Wadsworth & Sons. The same manufacturers also send a combination knife

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for Boy Scouts, as well as a single blade pocket knife. Arranged in cards of twelve for display purposes, the "Popular" brand pocket knives are worthy of note.

Another line from Frank Mills are table and dessert knives with square, white handles. Carvers are in sets of two and three, the blades being mirror finish and the forks stainless. Some of the cases are handsome in design and of high quality material. Good quality steel dessert and table knives by Ford & Medley are marked at low figures.

"Bengall" razors are a special line, while a German make, the "Swordflay," also claims attention. The latter is a hollow-ground razor, with imitation tortoise-shell scales, and comes in a handsome case. The "Britain" is another make from Germany, and Ahrem sends butchers' knives which maintain their reputation.

Hill, Magill Ltd., of 131-33 York-street, Sydney, are making a feature of Elizabethan tea and coffee sets. Very pleasing they look in their old English shapes. Hotel teapots, sugars and creams are largely stocked. China biscuit barrels with E.P. mounts are in profusion, and the new designs and colours should prove popular, some being richly ornamental, and others plain. Salad bowls in china and crystal are branded with E.P. borders. A richly cut fruit set on an E.P. stand of four columns is attractive. Dinner and breakfast cruets are in various patterns, triangular and elongated. Biscuit troughs are richly embellished and others have plain ends.

A wide range of case goods includes forks and spoons, carving sets, and more elaborate canteens with as many as forty pieces. The firm's own "Dad" brand of E.P. forks and spoons comes in A and A1 qualities, and varied as to the numbers in the sets. Uncommon are the knife-edged cake forks. "Dad" brand razors, specially made to the order of the firm by Wade & Butcher, are said to be of splendid quality, and to stand up to hard wear. Numerous brands of razors are carried, including the ever-popular "Bengall." The "Metropolitan" and "Continental" are supplied with xylonite on black handles and in heavy and medium weights.

Cooper's E.P. spoons and forks are in various qualities, as are George Perkinton's stainless table and dessert knives. Rodgers' and Williams' table and dessert knives are of first-class quality, and well ground. They are supplied in cabinets of half dozen each, stainless, dessert and table knives. Complete oak cabinets contain 26, 32, 42, and 52 pieces. Perkinton's carvers may be had in two or three pieces in oxidised steel in rack boxes. Others are in three pieces supplied in plush boxes. Special is a one-carver, having what is called a Spanish blade.

Full ranges of Harrison Bros. & Howson's and Southern & Richardson's pocket cutlery on cards are carried. A feature is a series of fluted aluminium-handled table and desert knives for hotels and restaurants.

Cigarette cases offer splendid value, and a wide assortment of engraved, plain and photographic designs are offered. Similar lines are available in match boxes.

S. Hoffnung & Co., Ltd., of 163 Pitt-street, Sydney, have in stock a comprehensive range of E.P. ware and cutlery, some of the former being very handsome in appearance. The polished silver fruit stands are set off with crystal linings, with two flower vases to match, and should be a fitting adornment for any sideboard. High, oblong fruit dishes, bearing carnation patterns, are made in oxidised silver, and others of the same material bear floral and fruit decorations. Noteworthy is a polished nickel fruit bowl with gilt linings, the range including round and oval makes.

Spirit flasks are in grand array, a novelty being one exactly like a book cover, bearing the words, "A Pleasant Surprise." A touch of a button reveals the mouth of the flask.

Black coffee sets contain nine pieces on a tray, and liqueur sets are provided with a polished decanter. The liqueur cups are of polished nickel finish on a long stem. Noticeable is a tray containing salad or ice cream sets, with silver stems, and side by side was noticed a similar set with crystal linings. A sterling silver tea and coffee set with hot water jug on a tray stood out prominently.

Bowls of various sizes may be used as salad bowls, rose bowls, flower bowls, or cake stands. They are supplied in oxidised or polished silver with cut glass linings. A claret cup is provided with a tube in which chipped ice may be placed for insertion in the liquid.

A big range of pyrex casseroles look very well in their silver-plated frames for placing on the table. The frames serve the dual purpose of fruit bowls when the casserole is taken out. Cut glass celery bowls are a noticeable feature in silver frames.

A sky blue and white coffee service with polished silver mounts rests on a tray of handsome design. Butter dishes, honey jars, hot water jugs and so forth are in heavy supply.

Canteens of cutlery are very striking, especially one for presentation purposes, containing 106 pieces. Smaller sets are on hand in great variety.

Novel are the tubular dinner chimes, wall pattern design, to take the place of the clanging dinner bell. Shaving outfits and cigarette cases are in the patented "Namcloid" linings. The Shelley cigarette case may be operated with one hand. Others bearing special designs are suitable for sporting trophies. Calendars in cases, novelties and salt pourers set off the display.

Mr. George H. S. Hoos, of Hoffnung's Chambers, 163 Pitt-street, Sydney, is carrying a large supply of real Chinese brassware, including a selection of vases, bowls, ash trays, and similar attractive goods in various designs.

An assortment of Wurtemberg ornamental brassware is also available. At this season these wares are increasingly in demand, and many excellent pieces are displayed. The design and finish of the jardinieres, vases, and fruit stands make an excellent display.

Kemp, Macpherson Ltd., of 252 George-street, Sydney, are making a feature of "Ralls" razor, made by Ralls Razor, Ltd., London. Supplied in an E.P. case with an automatic stropping device, the blade carries a five-year guarantee from the makers. The "Empire" razor by Henry Boker, has been taken up by the firm and is said to be a good article. Instead of the wafer blade it is now full hollow ground, and is guaranteed for five years. Burns' bread saws are now available with cocobolo handles as well as xylonite. The blades are stainless.

Scissors are shown in a wide range as to size, price and design. New are the oxidised silver fruit stands with silver and glass bowls and nut stands attached to the arms at the side of the pedestal.

P. Kleemo & Co. Ltd., of 217 Clarence-street, Sydney, agents in Australia for Walter Oxley, Sheffield, cutlery and E.P. manufacturers, are showing some fine samples of table and dessert knives in grained xylonite handles, with burnished blades, of Firth's stainless steel. This line appears to be of good value. Canteens are shown in great variety.

In E.P. ware are some very good entree dishes, teapots and tea services in the popular plain designs, both in nickel silver and Britannia metal. The Australian-made "Rotary" plate is worthy of note, a fine range being shown of scone and sandwich trays, cheese and biscuit stands. Special is a line of supper dishes, made on the principle of butter dishes, but longer and narrower for hot relishes or sand-

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wiches and other supper dainties. All are very moderately priced.

Fancy lines for the bedroom and boudoir are in great variety.

Lyon & Milling, of 62 Clarence-street, Sydney, make a feature of their own "Kangaroo" brand nickel spoons and forks. The stainless ware recently introduced under the name of "Resis Tarne" has become a favourite with buyers A comprehensive range of table cutlery includes consignments from all the well-known makers, not forgetting the "Nest" brand. From Reynolds there are six varieties of knives, and John Derby & Sons send the "Plenty" brand, made from Firth's stainless steel. The "Yuneeda" knife sharpener is stocked, as well as dessert knives, with celluloid handles.

A knife and fork combined is made for one-armed men. A broad, crescent-shaped blade terminates in three prongs. E.P. nut crushers are described as being of extra good quality, and a cheaper line is in cast iron. The "Lancashire" potato peelers are supplied in cards bearing one dozen. A wide assortment of butchers' knives are available as are sheath knives and ham slicers and Torrey's carvers. Pocket knives are in great variety, and several brands of razors are carried.

Scissors, a dozen to the card, and small and large sizes loose are on hand in large numbers. The large stocks of E.P. ware include cigarette cases, match boxes, calendars, ornaments, and boxes for the dressing table, vases, ash trays, biscuit barrels and so forth.

Noyes Bros. (Sydney) Ltd., of 115 Clarence-street, Sydney, have secured showrooms in Parbury House, at the corner of Erskine and York-streets, for the purpose of displaying their cutlery and crystal glassware, the last-mentioned being a new line with the firm.

As distributors for Joseph Rodgers & Sons Ltd., they are showing full ranges of cutlery of all kinds. An immense number of pocket knives, carvers, and table and dessert knives serves to show that the wide variety of cutlery manufactured by this world-known Sheffield firm. Very handsome are the sets of carvers in cases, and the ham and tongue slicers are said to be in strong demand. Rodgers' butchers' knives are made with staghorn, wood or composition handles, and are fitted with swivel-acting ring or shackle. The cases of ladies' cutlery and hollow-ground razors are in great variety as to design and quality, and canteens of table cutlery are supplied in a few pieces or in the very largest sets.

The Regal Silver Plating Co. Ltd., of Bishop-lane, Sydney, now under new management, make principally sugars, and creams and teapots for use in hotels and restaurants. Heavy weight forks and spoons are a chief feature of the output, and these are sold a low figures.

The Sheffield Manufacturing and Plating Co. Ltd., of 84 Wentworth Avenue, Sydney, are manufacturers of electro-plated goods on a nickel silver base, and of good quality. The ware is handsome in appearance. Ordinary and stainless cutlery bearing the firm's Shield trade mark, is a speciality, and is said to be winning favor among buyers on account of the price and quality. Ice cream and sundae cups are made in a variety of shapes and sizes, those on pedestals being most popular. Uncommon is a double biscuit barrel on a round-based shank, and provided with a triangular handle. Other new designs have been made, one having an ornamental base and knob to match. Vases for ferns, flowers and palms are tub-shaped, with pedestals. Flower vases in sets of three are attractive, the central vase having a rose bowl and being hinged to the other two. Boxes for the dressing table are in various sizes and designs, while ash trays, knife rests and such like lines are in wide assortment.

Smith, Copeland & Co. Ltd., of 33-37 Regent-street, Sydney, are showing stocks of the nickel-plated "Isovac" steel glass vacuum flasks. Said to be of extra strength these flasks are guaranteed for twelve months, and should they break with ordinary use in that period they will be replaced. Refills are provided, and all the flasks have drinking cups attached. The flasks are of one, one and a half, and two pint capacity.

Tarrant's Ltd., of 213 Clarence-street, Sydney, have on view an exceptionally wide range of cutlery from the Reinforced Silver Works, Sheffield. Heavily silvered fish servers, knives and forks appear to be of exceptional quality in their well-made cases. Cutlery canteens contain 30 and 42 pieces, and carvers are available in cases of two and three pieces. Dainty and rich looking are fruit and cake dishes on high pedestals.

Willis & Sons Pty. Ltd., of 50 York-street, Sydney, declare that E.P. ware is regaining its old place, and that sales this year have been well maintained. Especially is this true of cups for trophy purposes, a large assortment of which, including handsome designs, are on view. Of late the vogue is to present a large cup to the winning club and smaller cups to the members of the team. The greater proportion of the firm's stock of E.P. ware is of Australian manufacture and design. Specially noticeable are the footed entree dishes, which may be put to several uses, such as fruit, cake, and sweets dishes. The long and narrow dishes are said to be the vogue to-day, and the same remark is true of the long, oblong scone dishes on pedestals, with trays. The pedestal trays are coming into fashion again after an absence of fifteen years, and the squat dishes are going out. Smokers' stands are in E.P.N.S. Frames for pyrex ware are pierced and unpierced. Manicure sets for hanging on stands are supplied in from five to twelve pieces. Sandwich and biscuit troughs, ink stands and calendars are in wide assortment. A fruit set comprises six small dishes and a large bowl of cut glass on E.P. stems. Stands are also provided for the peelings.

Melbourne

Briscoe & Co. Ltd., of 391 Little Collins-street, Melbourne, report the arrival of full supplies of Sheffield cutlery. The brands include Christopher Johnson's, Ball's, and Rodgers', both in ordinary and stainless steel. Cases or canteens of cutlery are now being cabled for, and an assortment of different sizes and designs is open for inspection. Since canteens have become popular considerable reductions have been made in the prices of these goods, and excellent cabinets may now be found at a figure within reach of the average income.

Other knives which are always available are butchers', in various English makes, including Williams' "Pipe" brand, and bread knives of all kinds. The Burns bread knife is in several patterns, and finds a good market wherever it is shown.

A range of scissors extends from the small nail-cutting types to the largest tailors' shears. Both Rodgers, and Johnson's scissors are on hand. Mention should be made of toilet clippers, which might always be profitably displayed by the retail dealer. The inquiry for ladies' clippers of all kinds is considerable, and a good article may be sold at a price which would have been astonishing a short time ago. Several Continental makes are obtainable for a few shillings, which, although so low in price, are yet of good quality and finish.

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Both ordinary and safety razors are stocked. "Bengall" and "Invicta" are both reliable makes. The "Invicta," made by E. M. Dickenson Ltd., of Sheffield, is well recommended. Two Continental razors, namely, the "Platypus" brand, and one of Henry Boker's, are in good demand at the present time.

A stainless kitchen knife is a useful line for the retailer. These come on cards in an assortment of shapes, and as they fill a domestic need, find a ready sale as against the older types, which are prone to rust with careless handling.

Spoons and forks are stocked in every grade. The popular stainless metal still continues to interest the greatest number of buyers. The "Allwyte" and "Wearwite" are good examples of this kind of ware. Both E.P. and nickel spoons and forks are also here in leading makes.

Blockey, Stone & Co. Pty. Ltd., of 268a Lonsdale-street, Melbourne, have opened fresh stocks of "Wearwite" spoons and forks. Both light and heavy qualities are available. From the same makers come E.P.N.S. spoons and forks which carry a ten years' guarantee. All of these lines are recommended as reliable wearing goods.

Table cutlery by prominent British makers is constantly arriving, both stainless and ordinary steel. A good range of canteens is also displayed, the variety of linings, and arrangement of the cutlery within the cabinets, giving a wide choice of colours and styles. Excellent canteens may be had at a moderate figure, the forks and spoons also being of ten year guarantee electro-plate. Cutlery from Frank Wood Ltd. is meeting with ready demand, these makers' list of table ware, in nickel silver or stainless patterns providing good value in their several grades.

Tradesmen's knives, butchers', cooks', and ham cutting knives are always on hand. Williams' "Pipe" brand are among a good selection of makes. From the Anchor works, Sweden, come several useful knives, suitable for special purposes. The quality of Swedish steel is well known, and these are recommended as a strong, hard-wearing line. A special pattern is suitable for market gardeners, while others are for kitchen use. Show cartons of stainless potato knives are said to be "quick sellers." These come in half-dozens, assorted.

Pen and pocket knives cover a wide range of designs and qualities. Johnson's, Rodgers', and Harrison Bros. & Howson's are all on hand, in addition to some good lines from Bleckmann. These include rabbitters' skinning knives, and others particularly suitable for country trade. One number from Henry Boker is worthy of mention. It is of superior quality, every detail being well-finished, a Buffalo handle giving the article quite a "class" appearance.

An assortment of scissors has recently been opened, full supplies of Johnson's, Wiss', and Bleckmann's goods being on hand. Unusual value is represented in a carded scout knife. This is of the type beloved by the younger generation, and is offered at a very low price. Amongst a very complete selection of general cutlery the now universal hair clippers should not be forgotten. While the demand for clippers has steadied since the first "rush" by shinglers and their victims, there is still a large business to be done, and a number of good lines is here shown.

For the Christmas period a full range of Bradley & Co.'s brassware has been placed in stock. This comprises the latest designs of the well-known "Beldray" goods, such as vases, fern pots, smokers' stands, and ash trays, in addition to many fine glass lined fruit dishes. All of this range is interesting, and the various shapes and graceful designs make the ware most suitable for window displays.

John Danks & Son Pty. Ltd., of 391-403 Bourke-street, Melbourne, carry supplies of cutlery from Wade & Butcher Ltd. and Christopher Johnson & Co. Although stainless steel predominates, ordinary steel lines are still stocked for those who require them.

Some attractive cased carvers are on hand, ranging from quite moderate price to the higher grade suitable for presentation. A special feature is made of pen and pocket knives in a number of leading makes. Here the choice is extremely wide, every possible type and design being offered. Other cutlery is also available, such as razors, both safety and ordinary pattern, scissors of all kinds, and hair clippers. Ladies' clippers are quite a regular stock line nowadays, and besides the more expensive type there are some quite good patterns to be had at low figures.

The Burns bread knife and others of that pattern are still selling well. Several different shapes and sizes are to be had, with coco. or white enamelled handles.

Dixon's spoons and forks are always on hand, as well as cased tea spoons in all grades, and in many well-known makes.

P. Falk & Co. Ltd., of 289 Collins-street, Melbourne, have for many years carried large stocks of both cutlery and electro-plate. The range is extensive, and includes most of the well-known English makes, as well as several approved Australian selections.

Buyers have expressed the utmost satisfaction with the silverware from Arthur Price & Co. The results have led them to make provision for large sales of this maker's goods, and the display of cased table ware and loose cutlery is worthy of inspection. Specially attractive are the endless ranges of afternoon spoons and similar sets, which form one of Price's best departments.

Cutlery cabinets or canteens by the same manufacturer again reflect the public estimation. The appearance of these appeals to the taste, while the different woods and the tones used in the various linings add to the attraction they possess for buyers.

Besides the usual E.P. ware, a wide assortment of brass table utensils and ornamental goods indicates the trend of popular preference. A series of brass vases and jardinieres is sure to interest inquirers. These are in sizes from a few inches to about 36 inches in height. Designs include flower patterns in relief, and the styles are graceful to the eye, and in many cases imposing. Glass-lined fruit and other table dishes in the same material are often preferred to E.P. ware nowadays, and provision is made here to meet this change of ideas.

A host of trophy cups and similar requisites of the kind are prominent amongst a very fine all-round display.

Mr. George H. S. Hoos, of Carson-place, 289a Little Collins-street, Melbourne, is the representative in Victoria for Harrison Bros. & Howson, of Sheffield, and carries a stock of their spoons and forks, and stainless cutlery for the convenience of buyers. To arrive shortly he has a small assortment of the same manufacturers' E.P.N.S. hollow-ware. A full stock is also available of "Valet" safety razors and sundries.

J. S. Kidd & Co. Pty. Ltd., of 410-12 Lonsdale-street, Melbourne, amongst a large selection of table cutlery, offer leading Sheffield makes such as Johnson's, and Wingfields. The choice presented is wide, and some excellent values are presented. The same applies to sets of carvers, which are attrac-

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tively boxed for gift purposes. In this section also are several useful sharpeners for stainless knives. These will prove good lines for the retailer, as prices are quite moderate, and the quality reliable. The supply of bread knives is complete. The Burns come in three different patterns in both brown and white handles.

A recent shipment of cutlery includes a number of makes in butchers' knives. The quality of steel is here the chief consideration, and proven goods, such as Johnson's, Wilson's, and Russell's are selected as being all that could be desired in this respect. Buyers of pocket knives are well catered for. At no time have we seen such a variety of styles and shapes. An endless choice is offered of English and German goods, which must appeal to users.

Amongst razors the safety, in one pattern or another, bids fair to hold the market at no distant date. While the old style are still stocked for those who use them, a speciality is made of Gillette's and Gillette patterns. Valet and Durham Duplex of every known type. All kinds and makes of blades are also available. The English brands have lately come to the front, and offer good value.

An assortment of English E.P. ware, suited for trophies and presents, includes cake baskets, fern baskets, and a range of similar popular articles. In scissors the principal makes are Rodgers', Johnson's, Wiss' and several of German origin which are low in price and yet of quite high-grade steel.

George Russell Pty. Ltd., of 452-60 Flinders-street, Melbourne, are well stocked in these departments.

Heckworth electro-plate is always carried in a full range. This is of excellent quality, the finish and design being well executed. The list includes all table requisites, cruets, fruit dishes, entree dishes, soup tureens, and a variety of small accessories, such as napkin rings, salts and peppers, soup ladles and salad servers.

In the cutlery section table ware of Johnson's, Gregory's, and other Sheffield makes is in the different grades to suit all requirements. While stainless steel is now the rule, cheaper qualities are still in demand for many uses, and these are accordingly carried. Besides pocket and penknives, which may be found in English and Continental brands, butchers' knives and steels are displayed in Johnson's, Rodgers' and Williams' "Pipe" brand, and also in a good selection of the American lines of Landers, Frary & Clark. Carvers are usually asked for in cases or carded, and several patterns have been lately received of Taylors' "Eye Witness" lines, which are considered reliable in quality and reasonable in price. Rodgers' and Johnson's are also stocked.

Several good designs in bread saws are the "Sandusky," "Etna," and "Lightning," while Needham, Veall and Tyzack are represented by useful numbers fitted with wood handles. Amongst others the Burns patent edge is prominent. This is here shown in both white enamelled and coco. handles. The same people are now making another line for grape fruit or bread slicing, an ivory handle enhancing the appearance of this knife.

Mention should be made of a cheap set, comprising knife, fork and spoon of plain design, and low in price. This meets the demand for the camp or shearer's hut, where appearance is not considered. There is no doubt of the strength and wearing capacity of this set, which is one of the best selling items for country use.

In razors the familiar "Bengall" brand still holds its own. All sizes of this article are obtainable.

E.P. table spoons and forks, as well as the stainless nickel variety are continually arriving, stocks being always available. The leading makes handled are Page's and Harrison's, which give every satisfaction to buyers.

Hair and beard clippers, also those for shingling, include many of exceptional value at a low figure. Every number, from the finest to the heavy type, is now obtainable.

Thompson & Rohan Pty. Ltd., of McEwan House, Melbourne, have a display of silverware and allied goods which is worthy of inspection, not only for the goods themselves, but because of their arrangement, the various sections being so placed as to render the task of selection easy and pleasant.

Prominent in the E.P. department are the cased goods of Arthur Price & Co. Ltd., of Birmingham. These makers have commanded success on the market by the quality and finish of their lines, which are also offered at competitive prices. Quite a large range of Price's cased sets, afternoon tea spoons and others are here, and a particular class of plate may be found for each kind of trade. The firm draw special attention to their selection of canteens, which include the products of various British manufacturers.

In many lines of table and ornamental ware brassware is rapidly making its way. This is again emphasised in the very fine range of smokers' stands, fruit dishes, vases, ash trays, and the host of similar articles suitable for the season's trade. The glass-lined ware is specially attractive in appearance, the different types of finish making a pleasing variety of tones to the eye. Fire screens of this material, with scenes of Old English interest or historical events worked in relief will be certain to find many buyers during the year.

A section of the showroom is devoted entirely to E.P. cups and trophies; a comprehensive assortment is always available here, and quite a steady business has been maintained by the judicious selection of suitable articles for the purpose of sporting awards.

In the cutlery department canteens have been mentioned. These are exclusively in stainless steel, and a stock is also kept of prominent makes in table knives of all grades. Good stainless cutlery is now obtainable at prices which were not possible a few years ago, due to the improvements in factory equipment and processes. E.P. and various white metal spoons and forks are also on hand.

New Locknut.

The American Gas Accumulator Co., of 100 East 42nd Street, New York, U.S.A., are the inventors of a new locknut known as the "Elastic Stop."

The nut contains an elastic cushion of hard vulcanized fibre, near the top of which is held in position by a spun-down flange. The hole through the disc is somewhat smaller than the outside diameter of the bolt and is not threaded.

When the bolt enters the nut and meets resistance from the cushion it is pressed backward so that the contact between the metallic nut and the screw takes place on those flanks of the thread that sustain the pressure after the nut is drawn home against a support.

This backward pressure forms a friction resistance on the metallic flanks claimed to be sufficient to prevent the nut from turning. Thus the nut will always fit tightly on the bolt even when it is not drawn home. When the bolt enters the cushion further it impresses a thread which fits with a suction grip around the bolt, no chip being cut out. Thus a considerable pressure is exerted around the bolt and prevents the nuts from turning and becoming loose through vibration.

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Electrical Notes from New Zealand

(Specially Contributed.)

Dunedin City Council's electricity department showed a very satisfactory return for the half-year ended September 30, the revenue exceeding that for the corresponding period of last year by £4000. The number of consumers for the same periods shows an increase of 903 in favour of this year.

At Waikaramoana two 20,000 kv.a. generating units will be installed in the initial stage, provision being made in the power station for a third unit of the same capacity. Electric supply from this development is due early in 1929. Good progress is being made with the power house and the head works.

Waitomo Power Board's proposed loan of £20.000 for the erection of offices for the board in Te Kuiti and Otorohanga, and for the purchase of static condensers and further reticulation, has been sanctioned by the Local Government Loans Board. A poll of ratepayers will shortly be taken on the loan proposed.

As the reticulation of its district has proceeded, the growth of Waitemata Power Board's business has greatly exceeded the estimates. The revenue for the first year, 1925-26, was £610, and in 1926-27 £6900. This year it is estimated at £50,000. In February last there were 1900 consumers; to-day there are 6000. It was originally estimated that the third year's return would be £32,000. If the proposed loan of £80.000 is carried, the later estimate of £50,000 will be very considerably exceeded, through the bringing in of new consumers. The board will then be able to consider substantial reductions in its charges for current.

The annual report of the Government chief electrical engineer, just published, gives some very interesting and significant figures on the growth of electrical development and supply throughout New Zealand.

For the Lake Coleridge scheme, which has completed the twelfth year of operation, the capital outlay at the end of the year was £1,538,569 as against £1,366,950 for the preceding year, an increase of £171,619. The total revenue for the year was £150,240, and after payment of all charges, an excess of £26,250 was shown. The total connected load at the end of the year was 112,424 kw., or about 24 per cent. higher than the previous year. The new transmission line from Hororata sub-station to Timaru was completed in August, 1926, and the Timaru-Omaru line completed three months later, when supply was given to the Waitaki Power Board from the department's substation at Weston. Considerable extensions were made to the outdoor equipment at Timaru substation, and provision was made for a second transmission line to Omaru.

The construction of the new intake works, tunnel, surge, tank and pipe lines for the power station extensions was completed, and the first of the two new 7500 kw. generating units run on load during July, 1926. Up to that time the existing plant had been heavily overloaded, and assistance was obtained from the Christchurch Tramway Board's station. The erection of the second unit was completed in November, 1926. Both machines have been run on overload with good results.

The North Canterbury Power Board was formed last March and will control supply over an area extending from Waimakariri River to Waipara River, and will be supplied by a new 33,000 volt line from Addington substation to Southbrook. Extensions to the area of the South Canterbury Power Board comprised the counties of Mackenzie and Levels.

Dealing with the Waikato electric supply, the report shows that the capital outlay at Horahora, at the end of the year was £576,841, as compared with £561.065 at the end of last year, an increase of £15,776.

In addition to the capital outlay provided under the Horahora scheme, works of a total capital value of £268,107, provided under the Arapuni scheme, are now in operation.

Work has been in progress throughout the year on the Arapuni-Penrose double-circuit steel-tower 110,000 volt line, which will transmit the bulk of the power from the Arapuni hydro-scheme, when completed, to the Auckland district.

In Wellington province very satisfactory increases in load and revenue are shown for the Mangahao hydro-electric system. Capital outlay at the close of the year was £2,242.871, representing an increase of £220,555. Total revenue for the year was £101,897, an increase of £25,040, or 32.6 per cent. The system earned 4.0 per cent. on the capital in operation during the year.

During the year supply has been given to the Wanganui-Rangitikei Power Board at Wanganui substation, and to the railway workshops at Petone. Supply to the Hawke's Bay Power Board was given last April. During the year all the Power Boards have greatly exceeded their guarantees.

On account of the third dam not being completed, it has been necessary to call on Wellington City Council's steam plant, Wanganui-Rangitikei Power Board's steam plant, and Palmerston North Borough Council's gas plant when the hydro-station was overloaded during periods of low river-flow The maximum load which has been reached is 20,040 kw., equal to the normal capacity of the plant.

The Government has, at the present time, two major hydro-electric developments under construction, namely, Arapuni, on the Waikato River, and Waikaremoana, in Hawke's Bay province. Regarding the Arapuni scheme, the contractors, Sir W. G. Armstrong, Whitworth & Co., have made good progress with the construction of the dam, a huge structure which will span the Arapuni gorge on the Waikato River, but on the power-house site considerable difficulty is being met with owing to the inflow of water from the river into the foundation excavations. This has greatly delayed operations, and the completion of the work will be considerably behind contract time. The equipment that has already arrived on the site includes three main generators, two turbines, 10-5900 kva. transformers, and 4-4700 kva. transformers.

A Poser.

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"But," interjected the boy, "what am I to do when somebody closes the door?"

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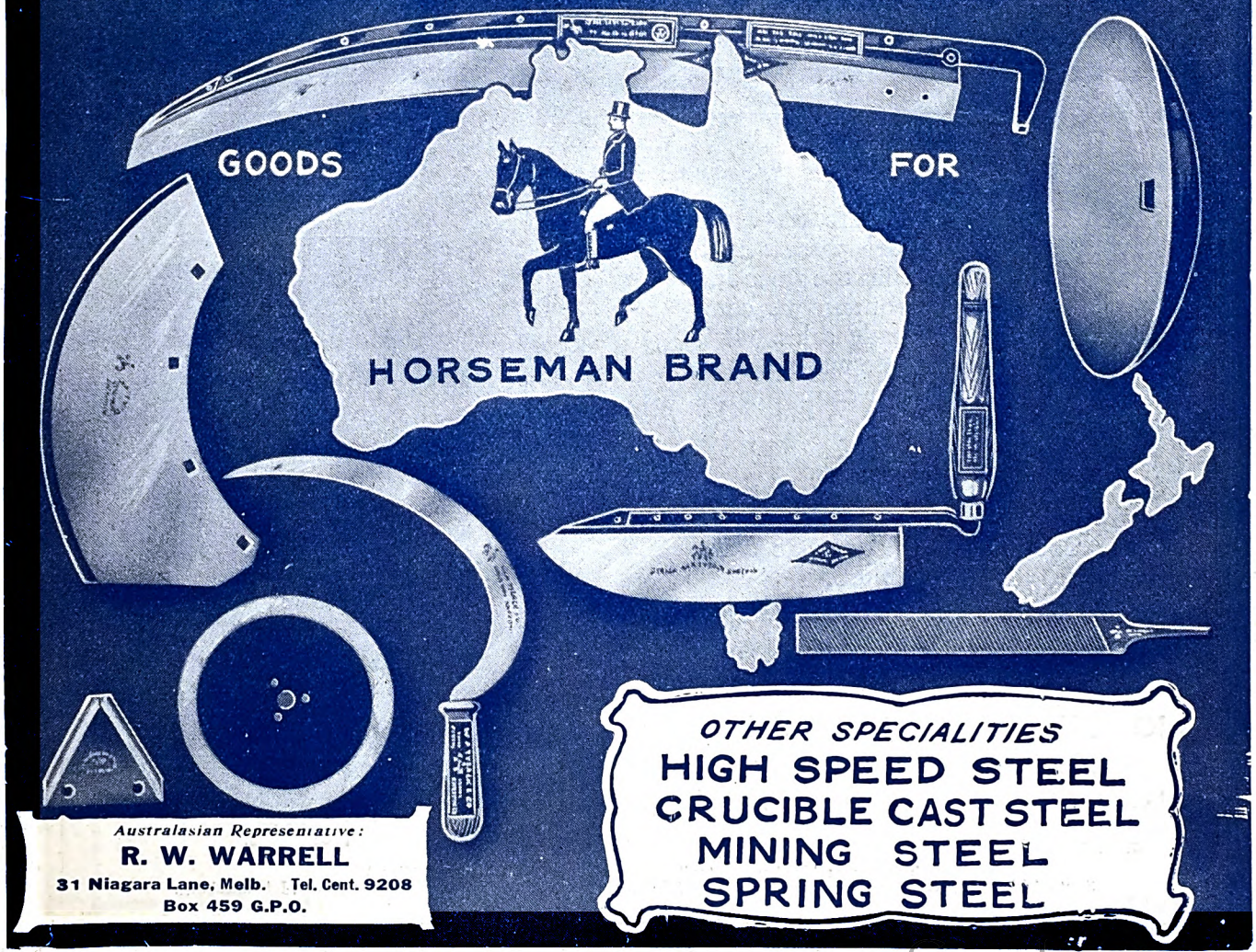
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New Zealand

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Hardware and Machinery

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New Zealand

MARCH 7, 1927

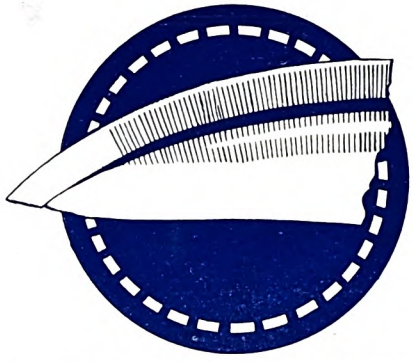
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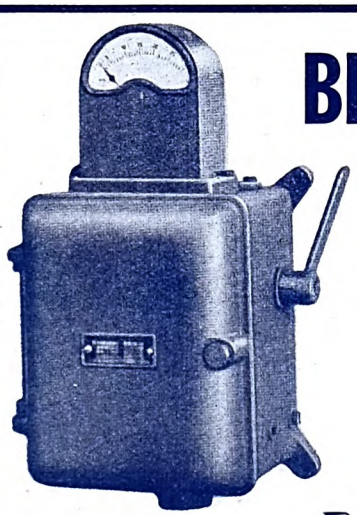


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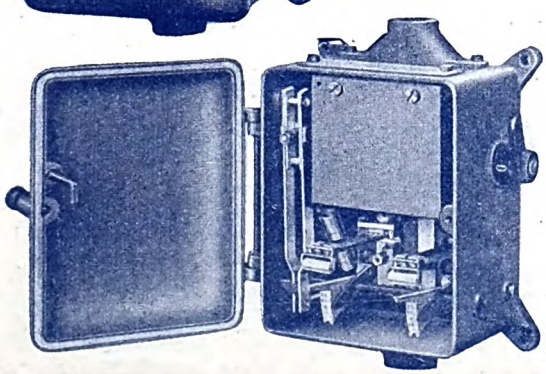
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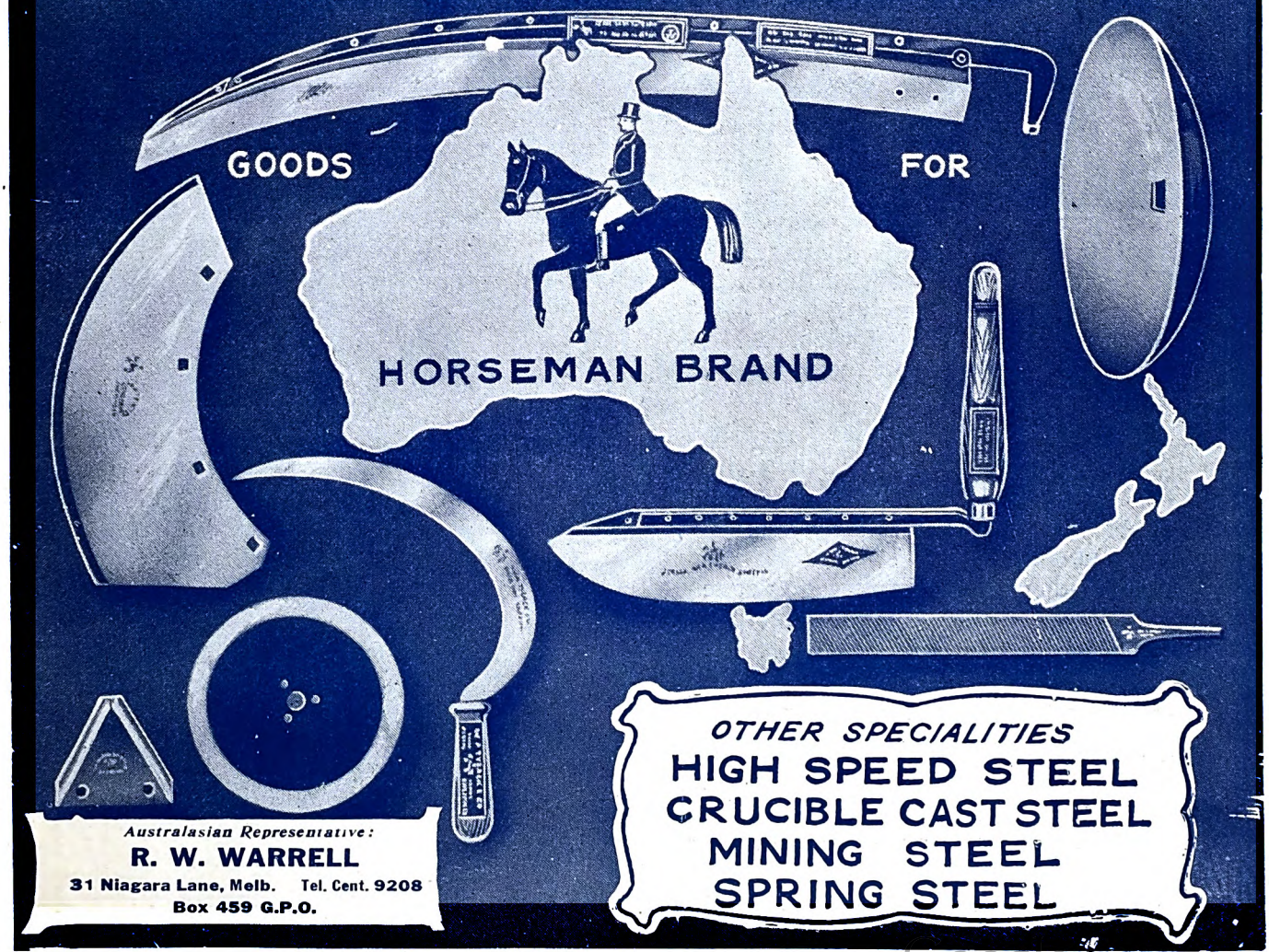
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MAY 6, 1927

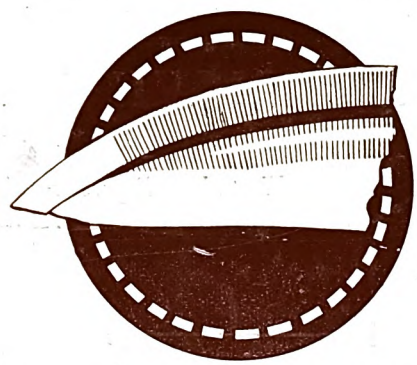
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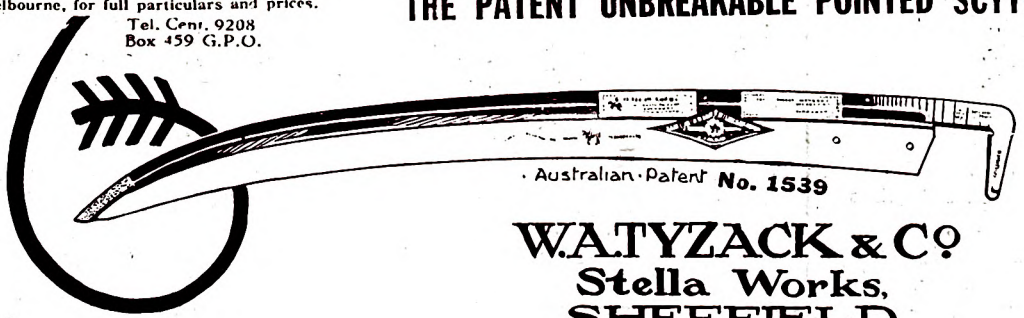
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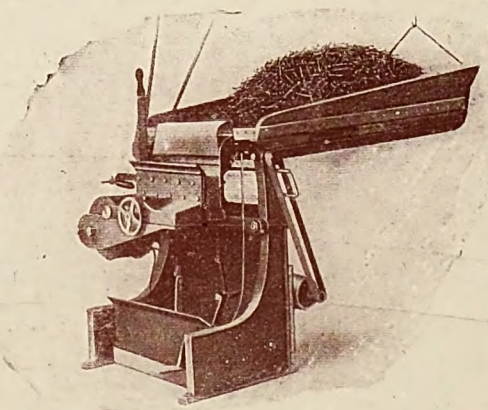


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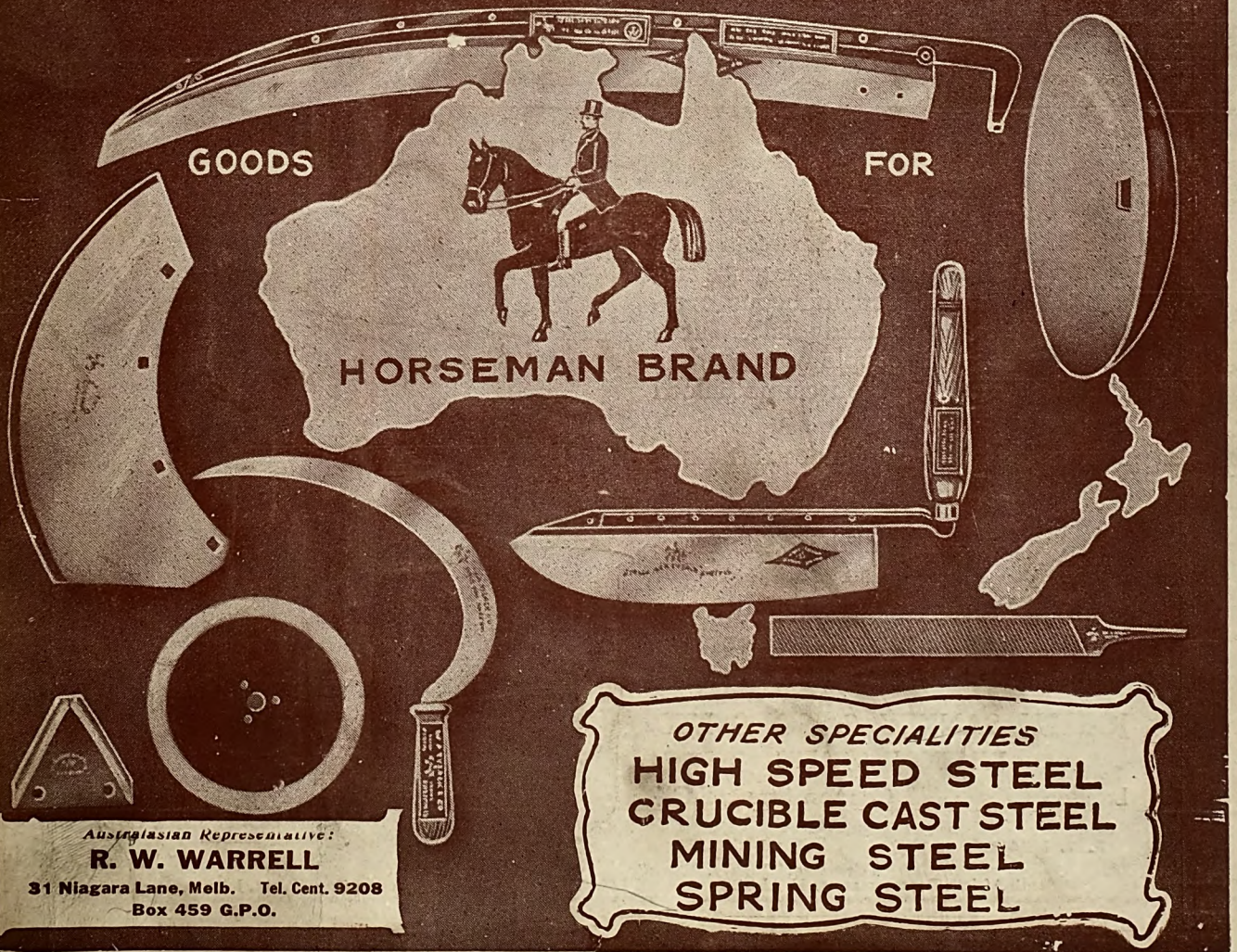
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VOL. XLII. No. 8

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VOL. XLII. No. 9

AUGUST 6, 1927

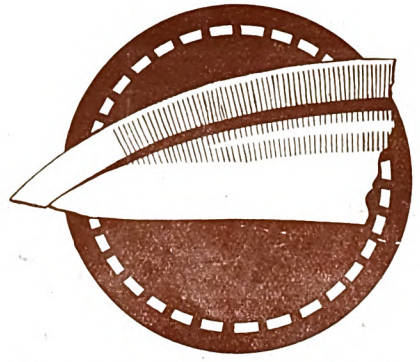
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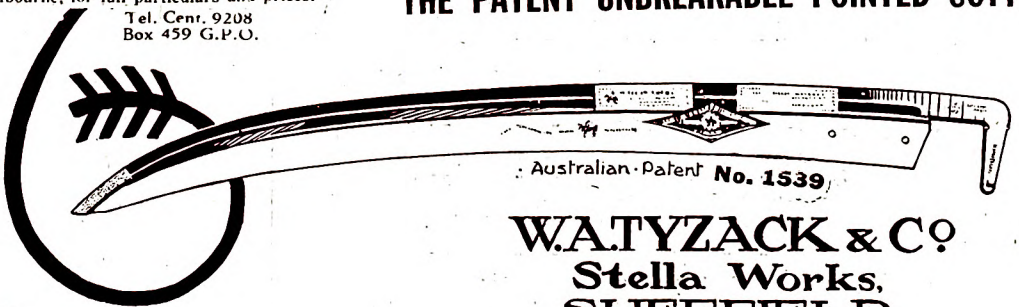
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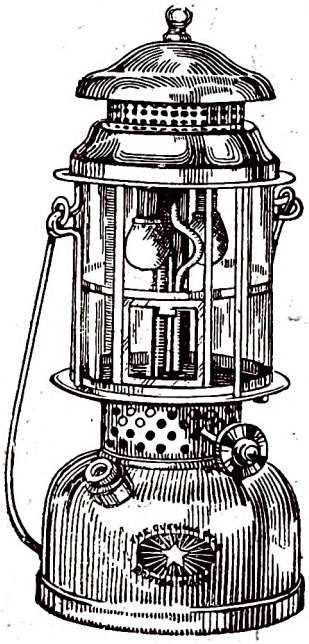


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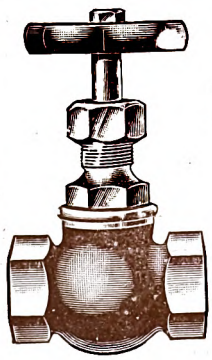
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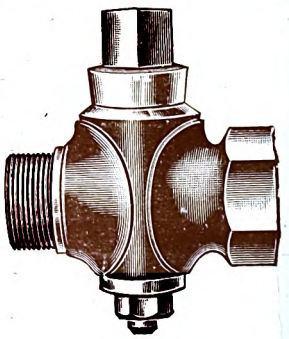
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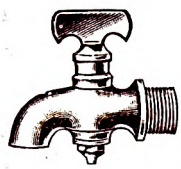
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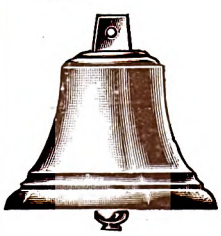
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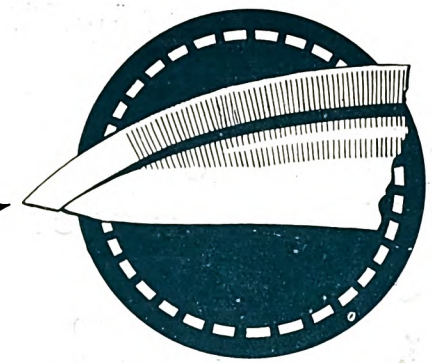
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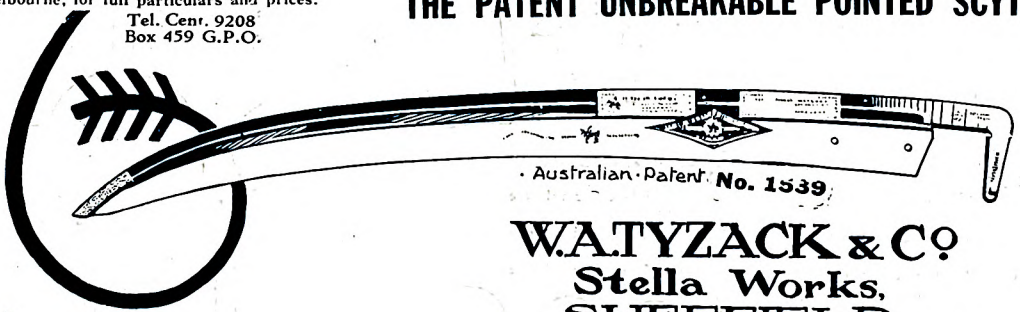
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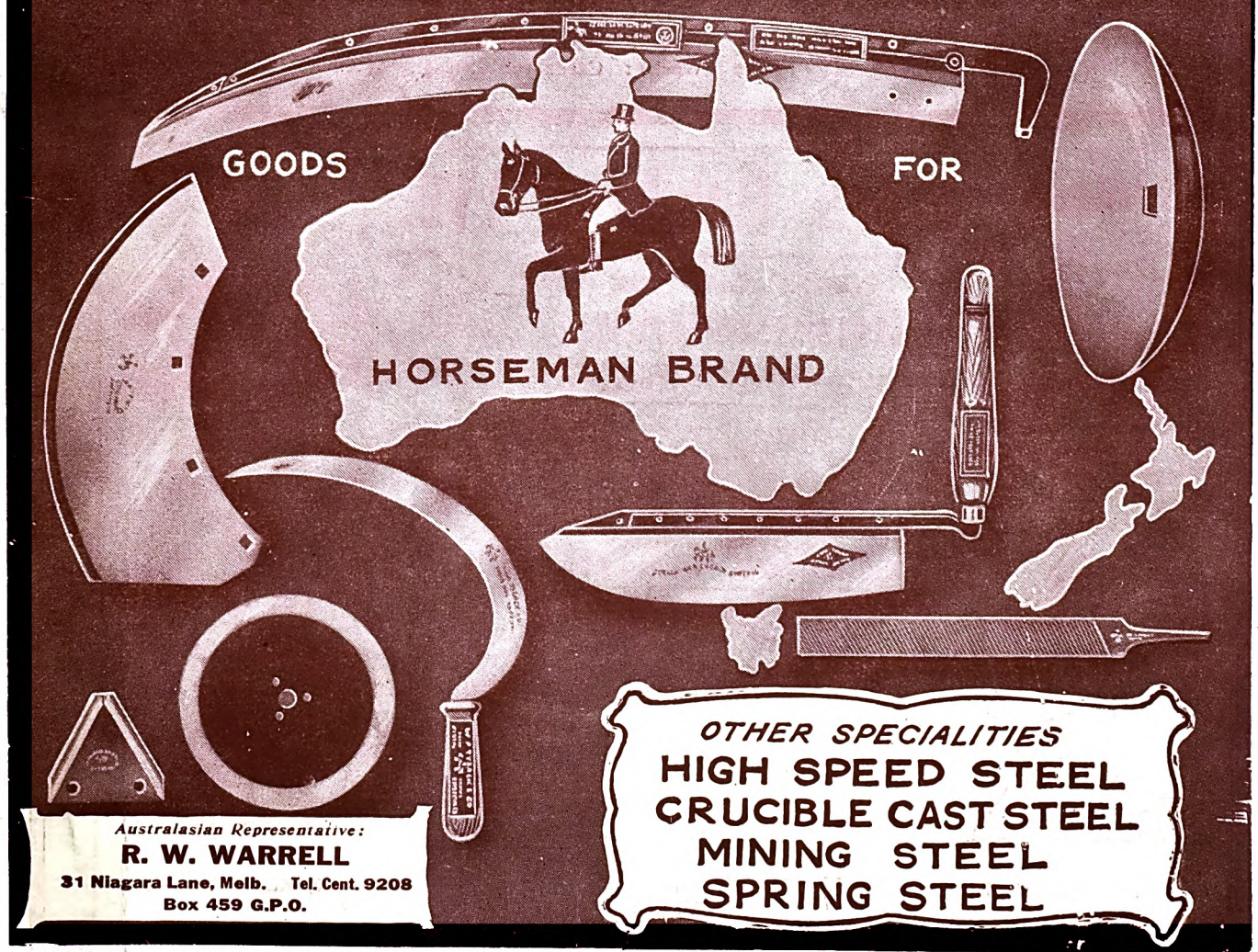
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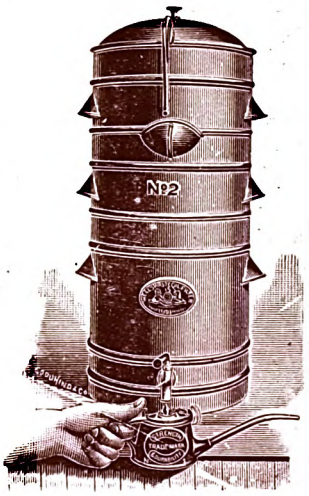
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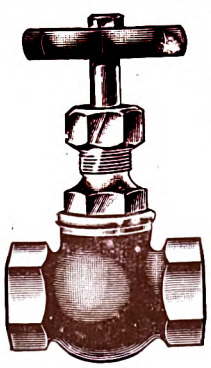
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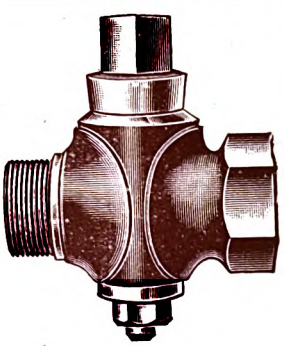


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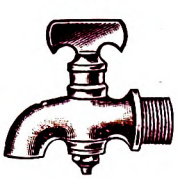
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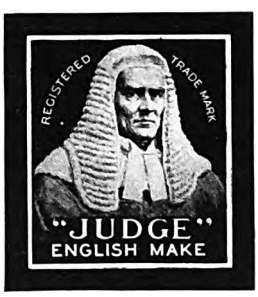
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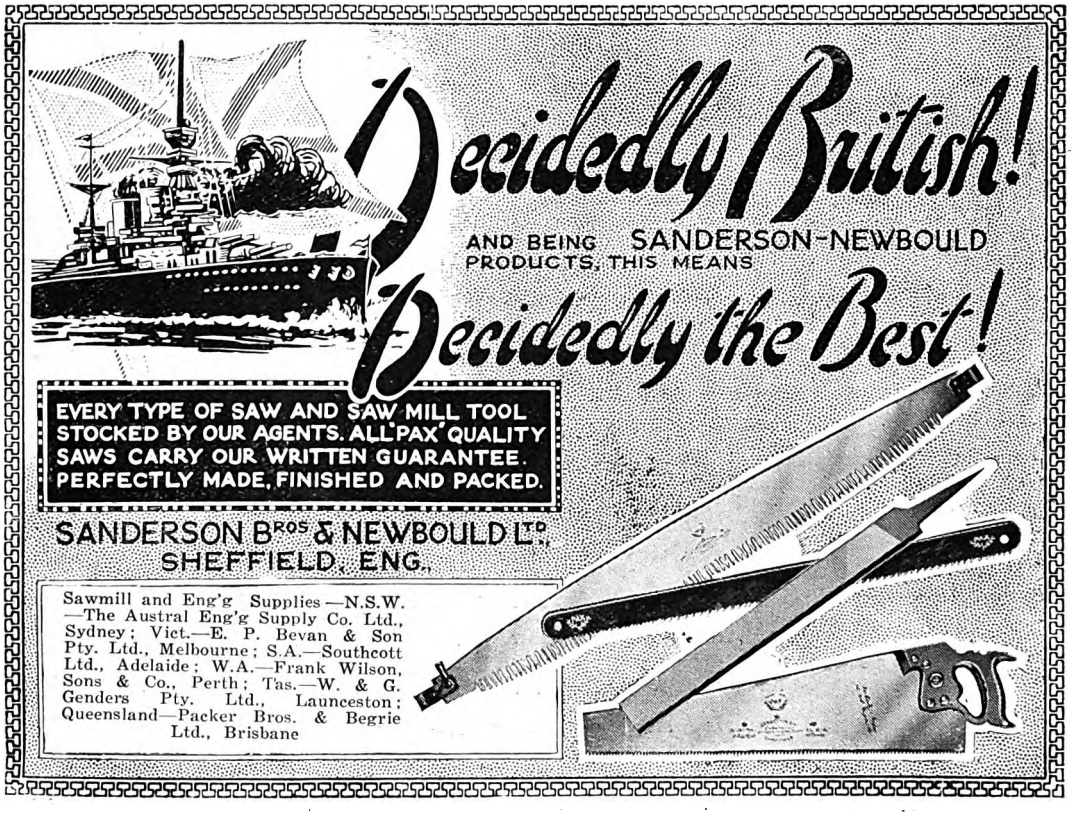
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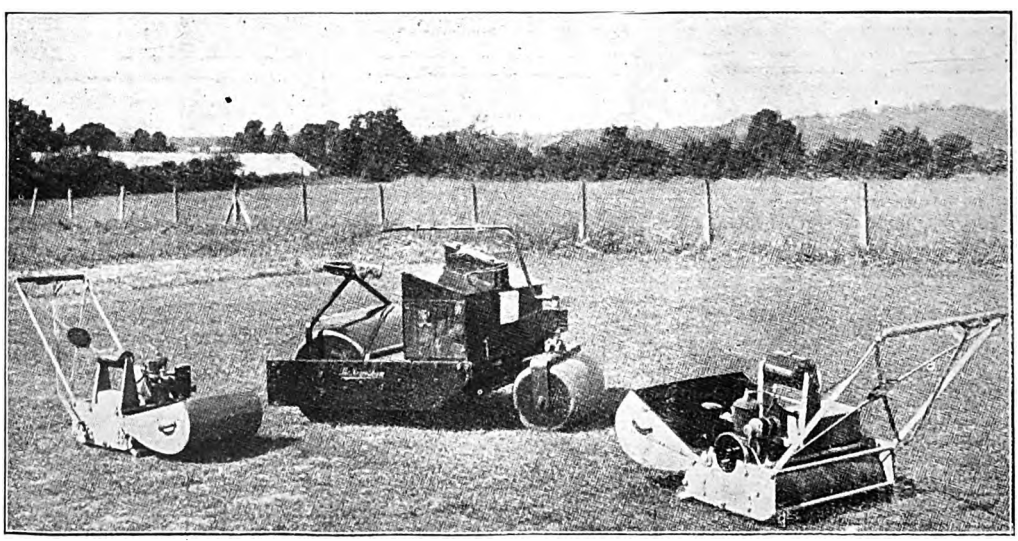
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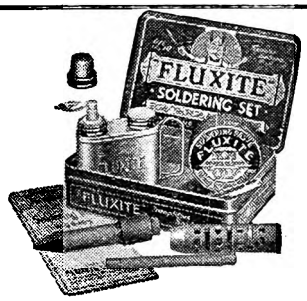
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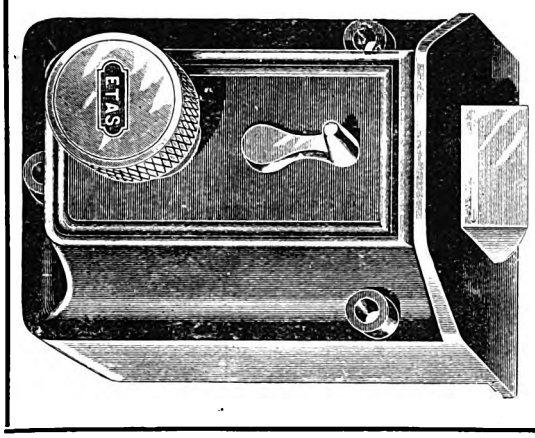
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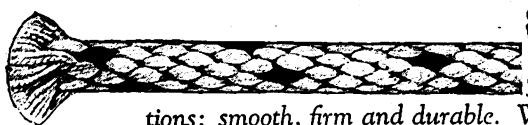


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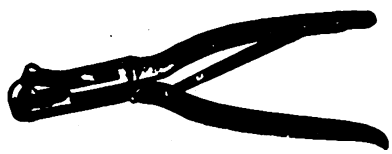
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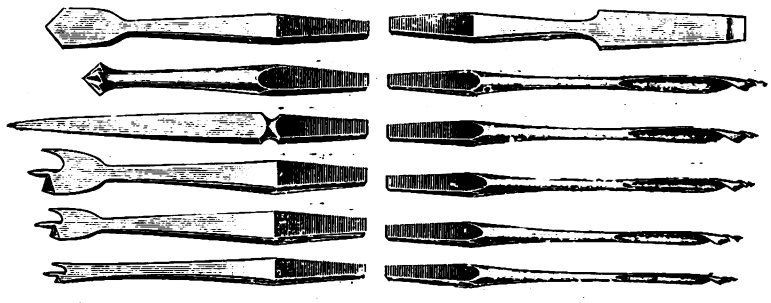
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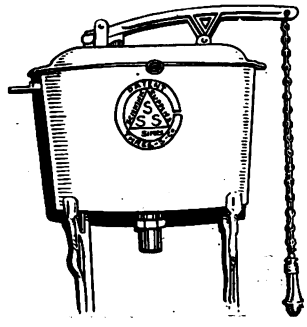
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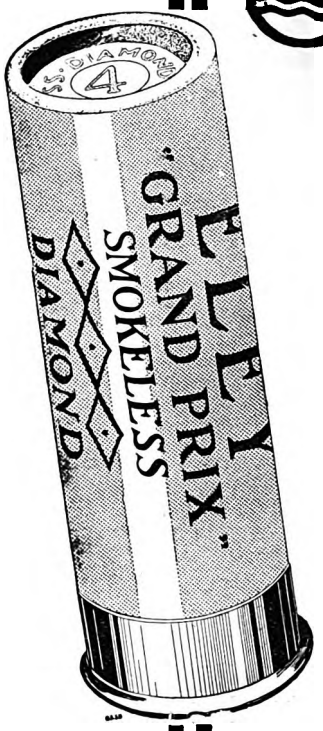
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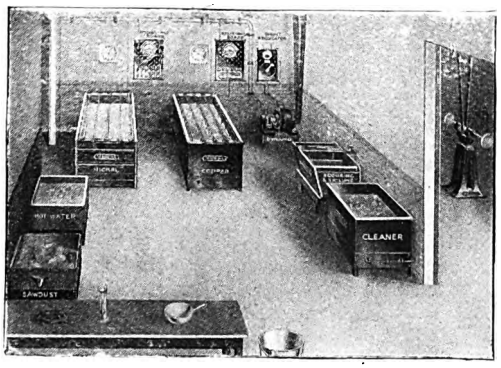
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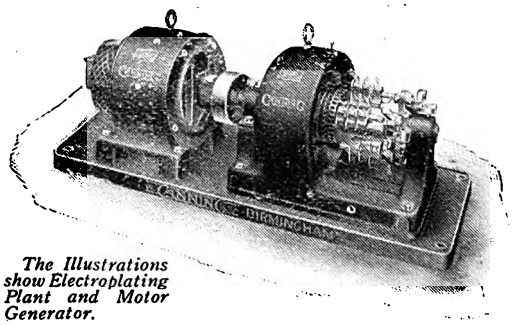
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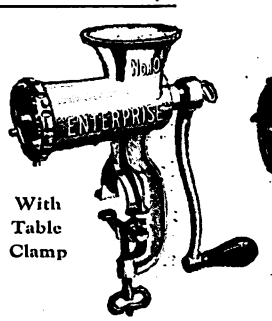
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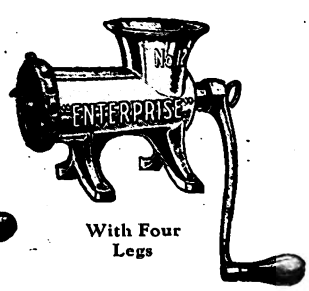
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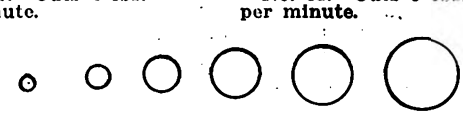


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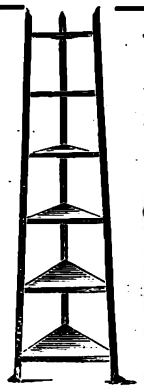


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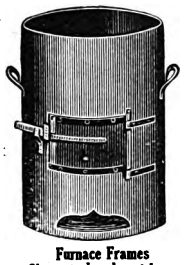
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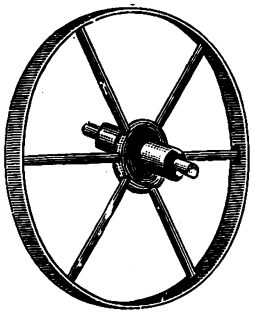


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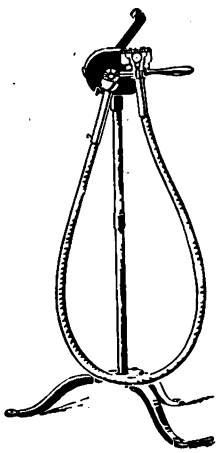
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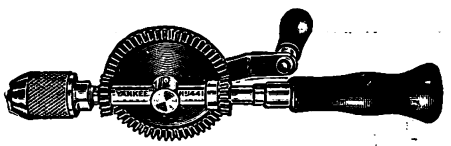
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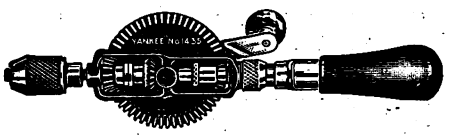
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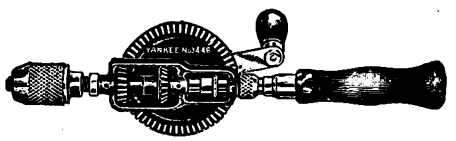


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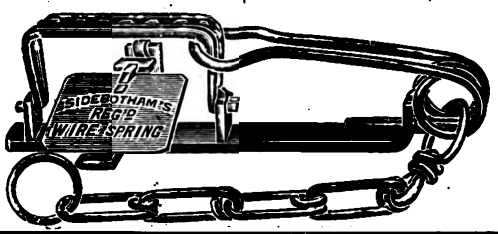
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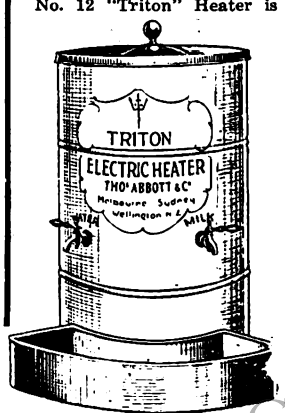
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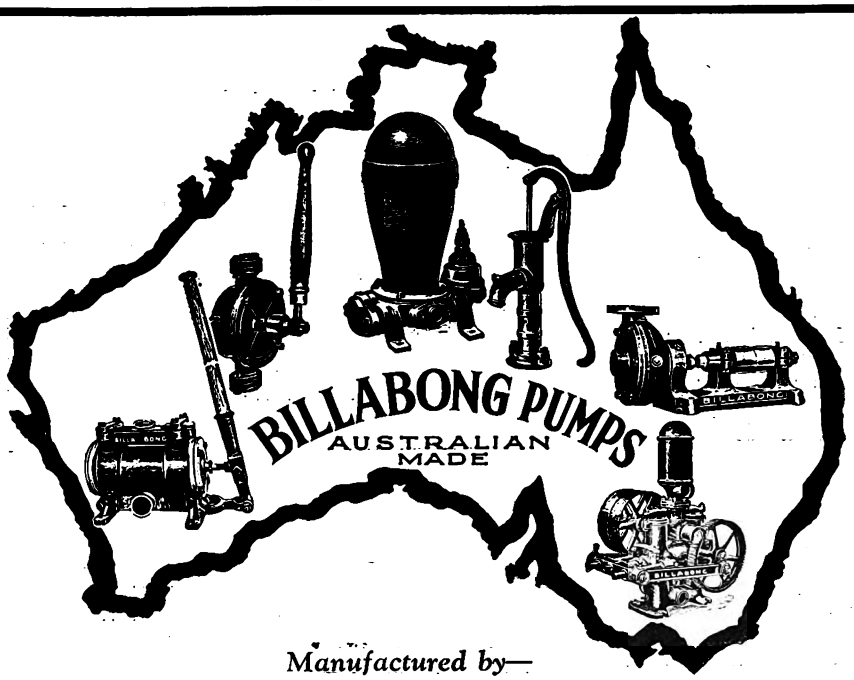
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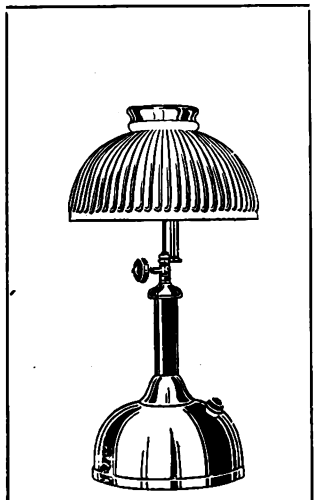
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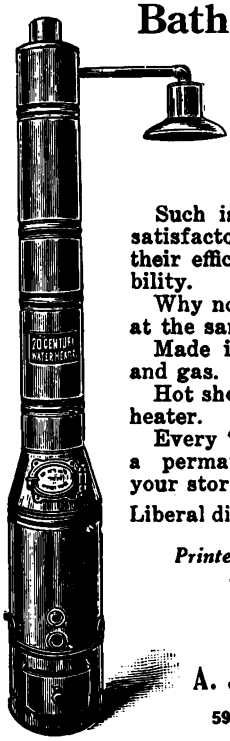
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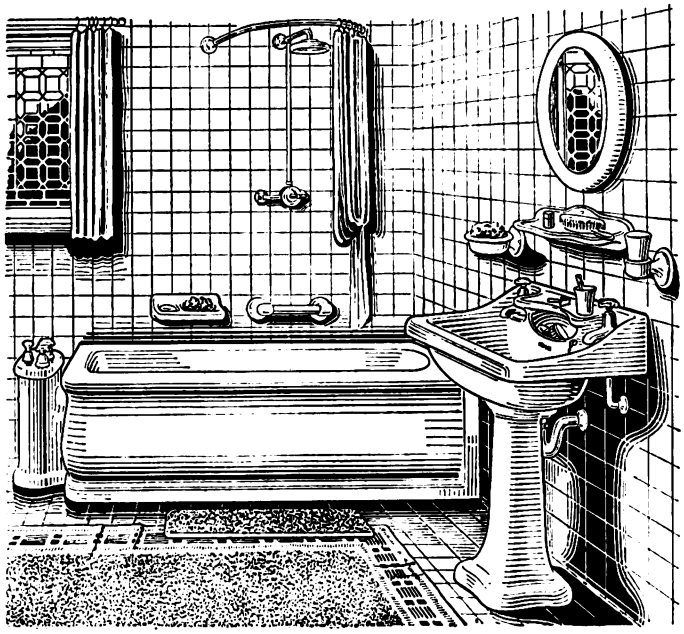
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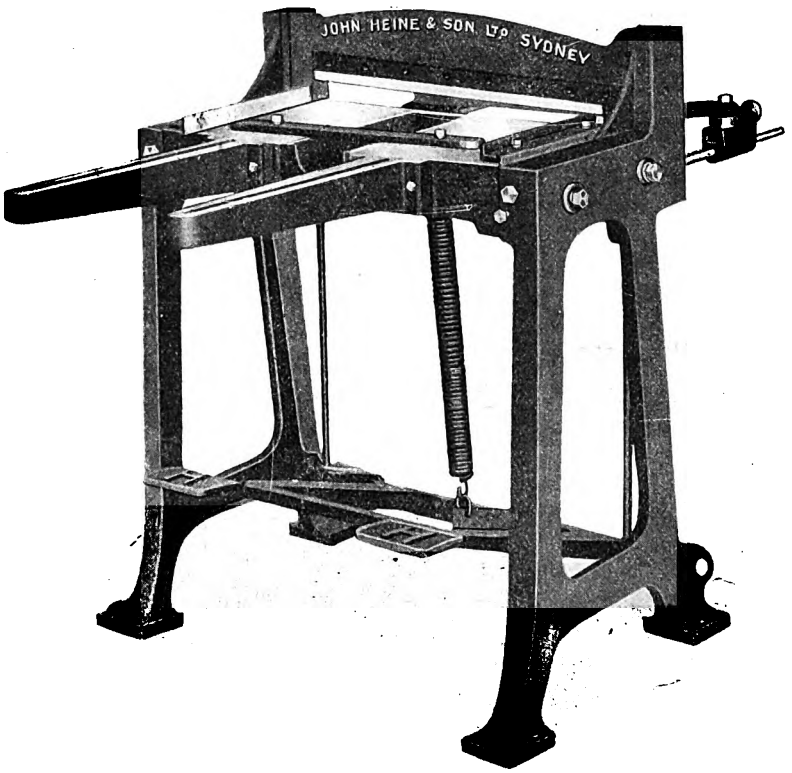
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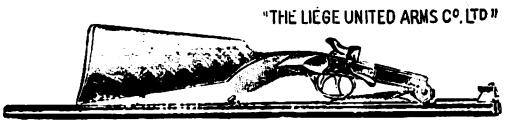
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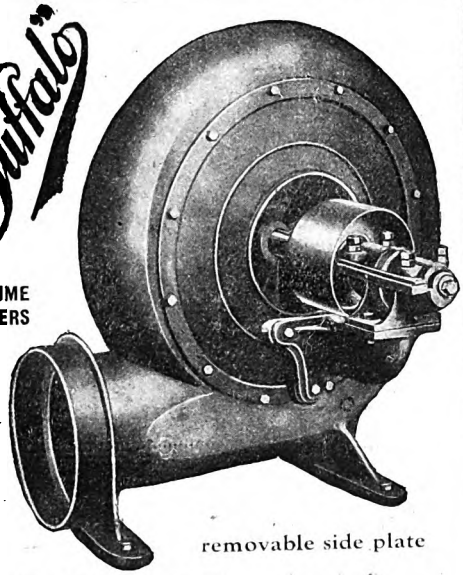
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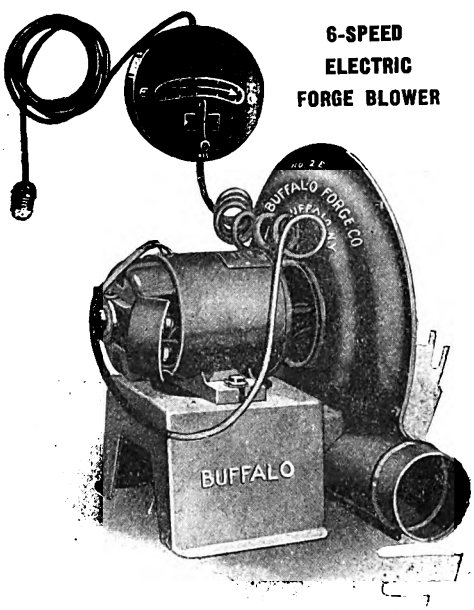


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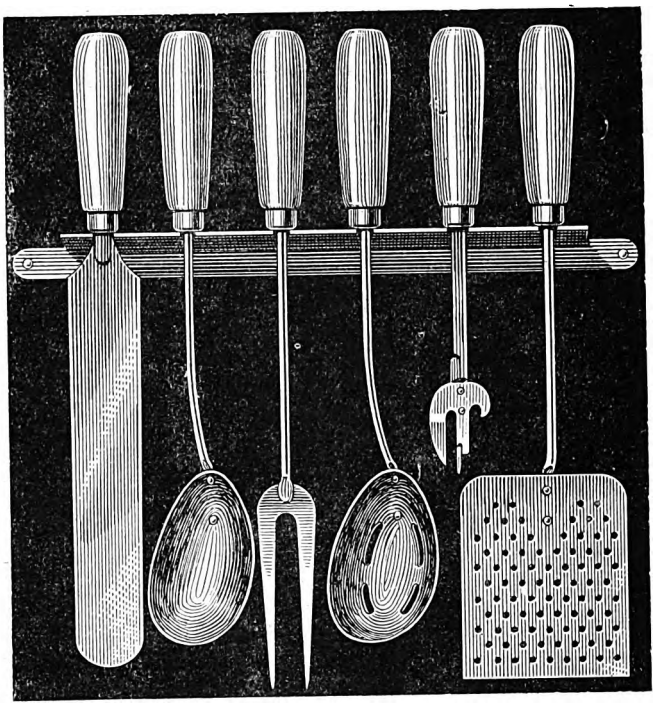
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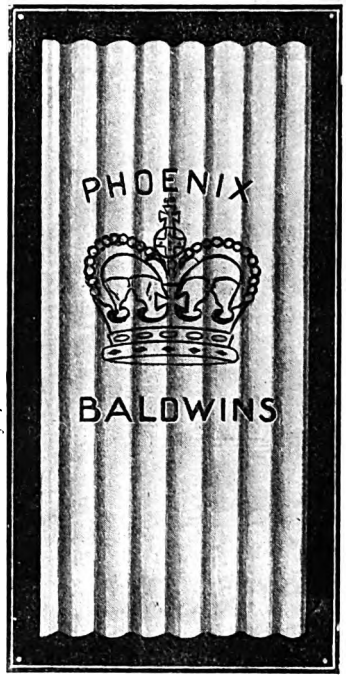
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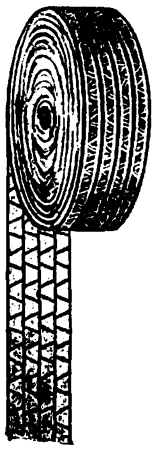
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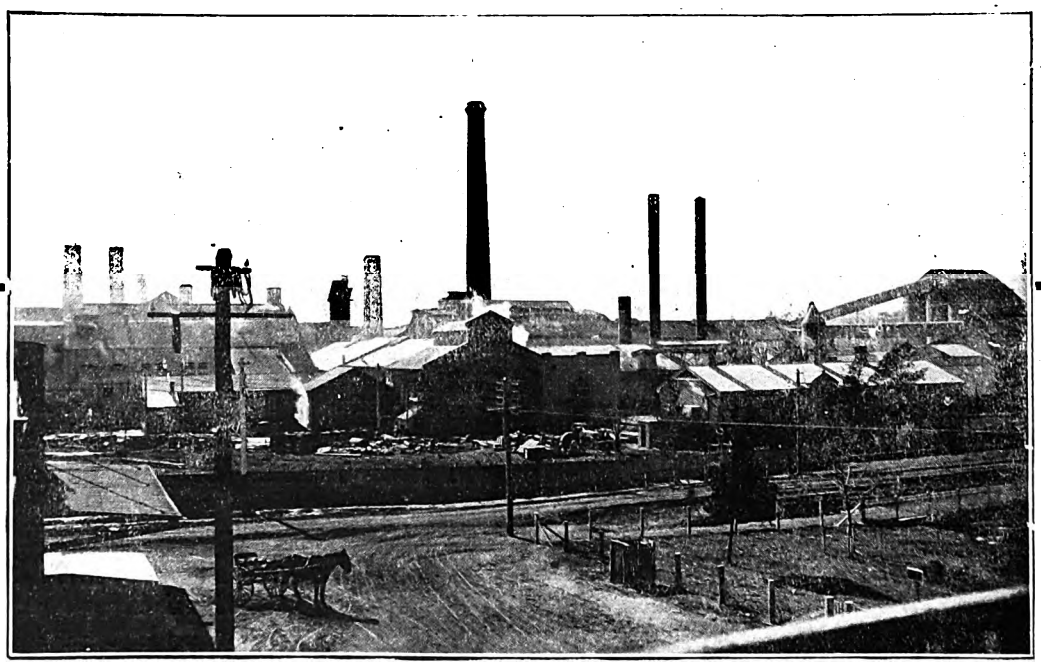
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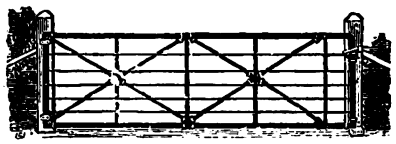
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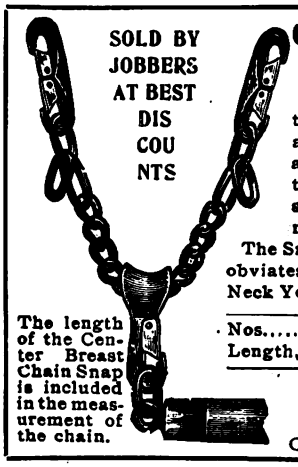
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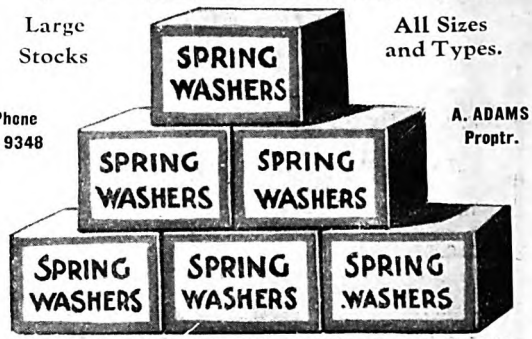
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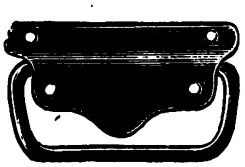
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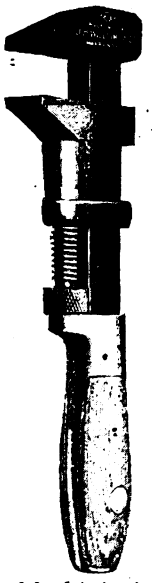
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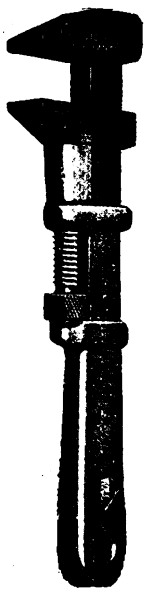
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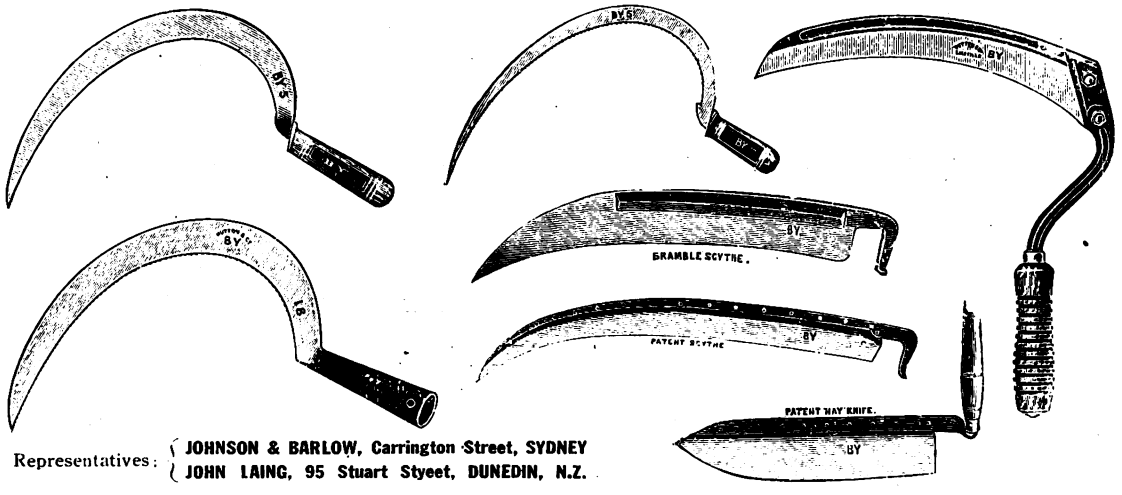


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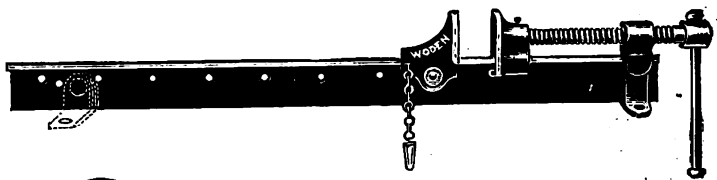
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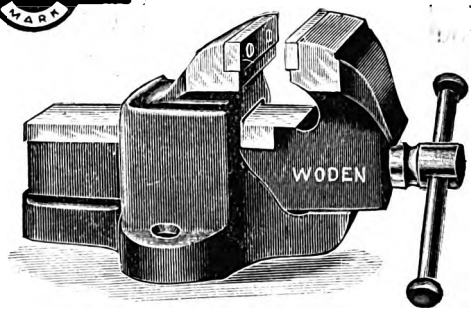




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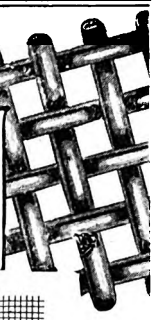
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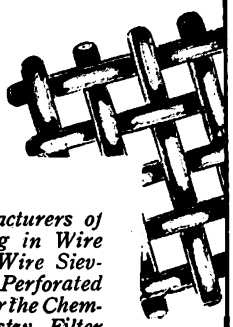
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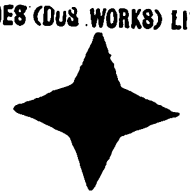


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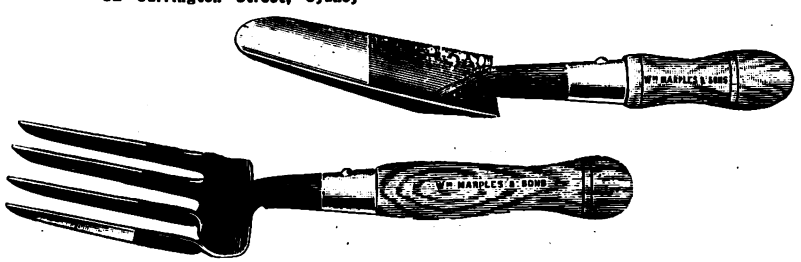
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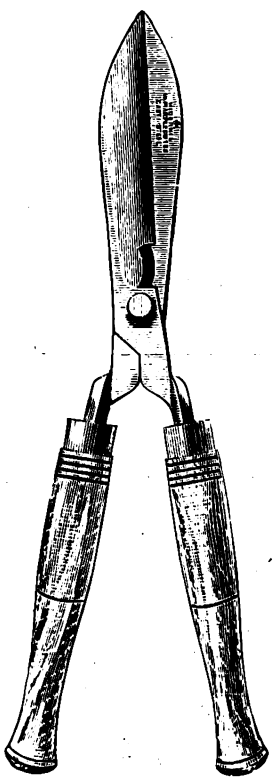
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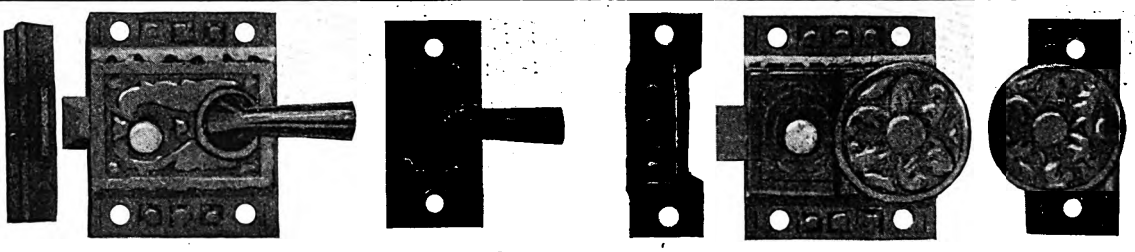
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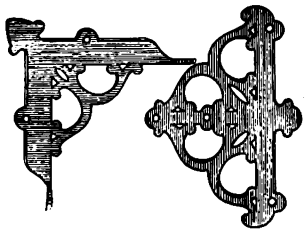




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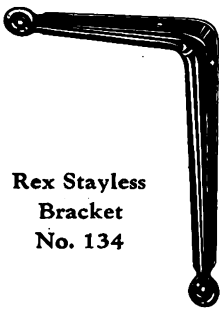
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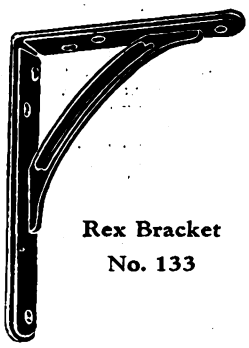
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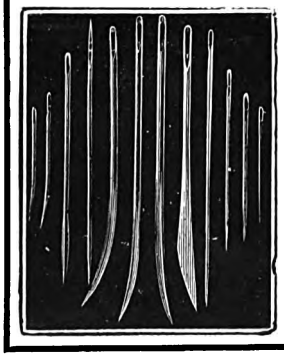
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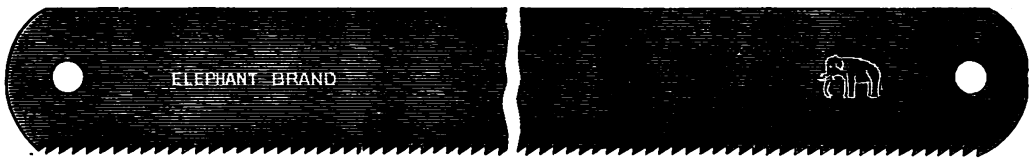
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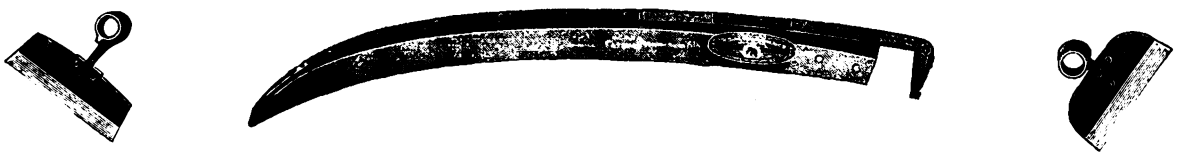
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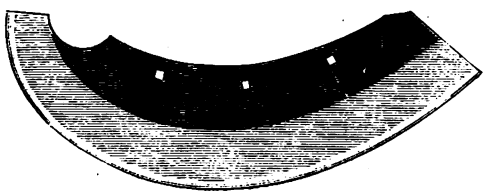
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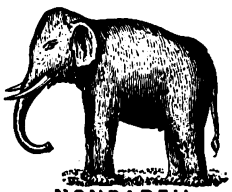
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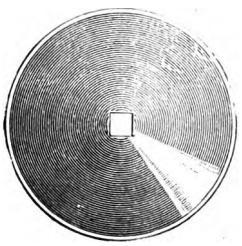
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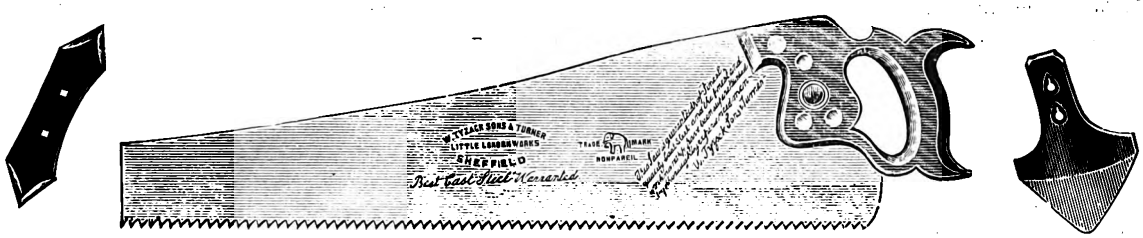




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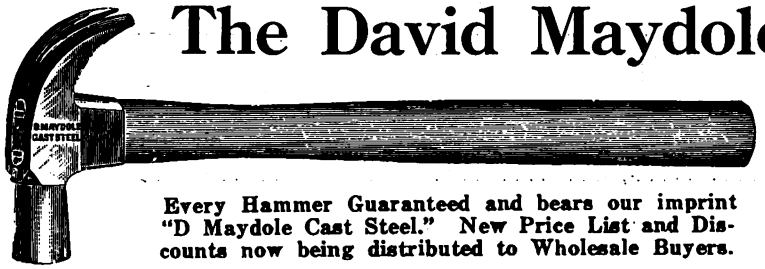
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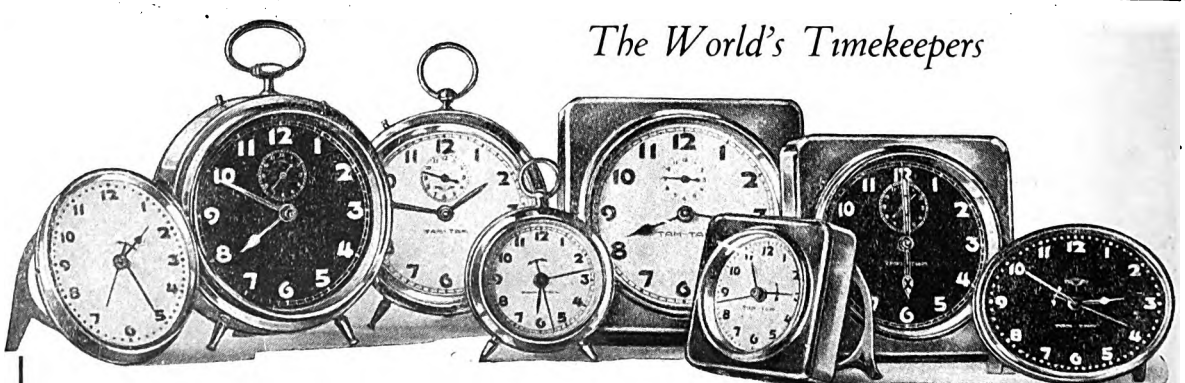
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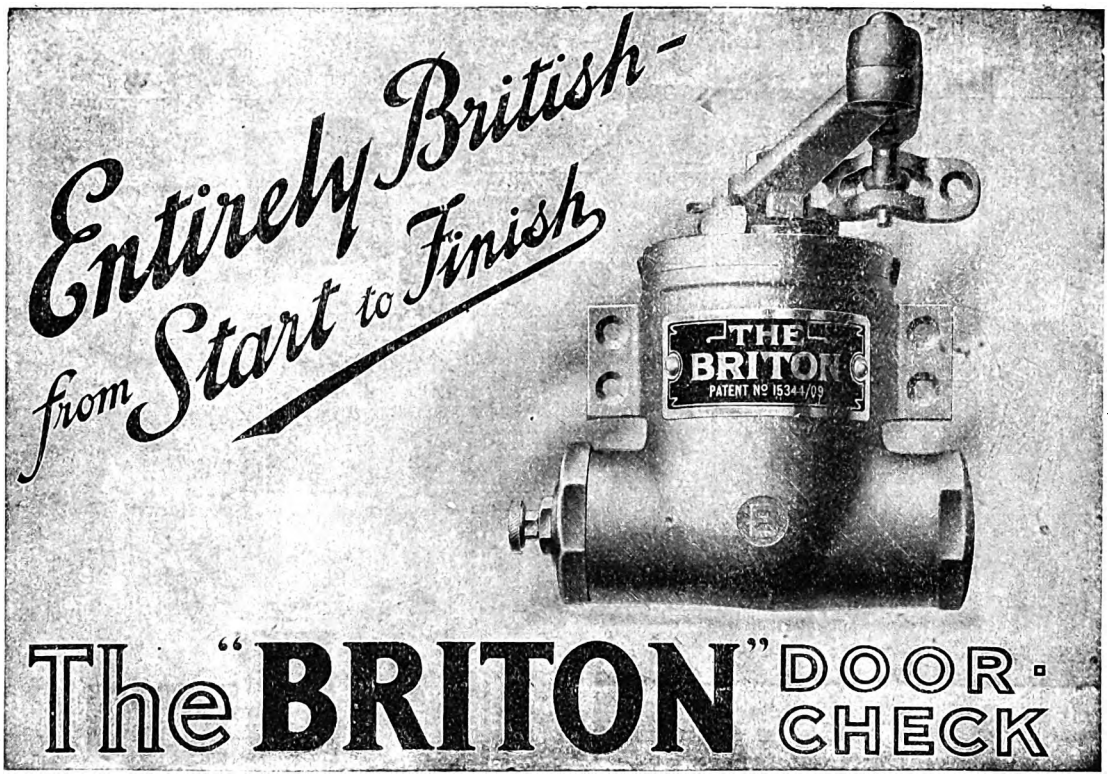
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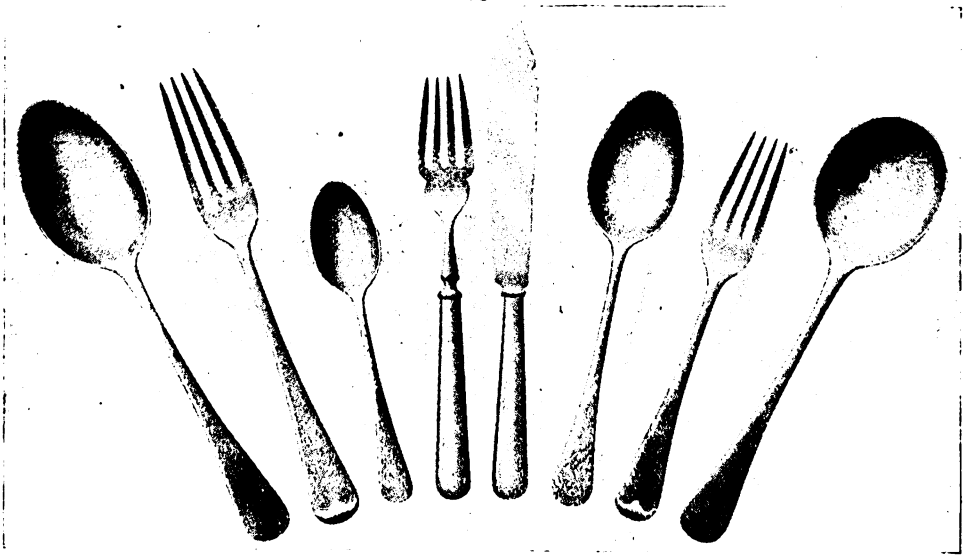
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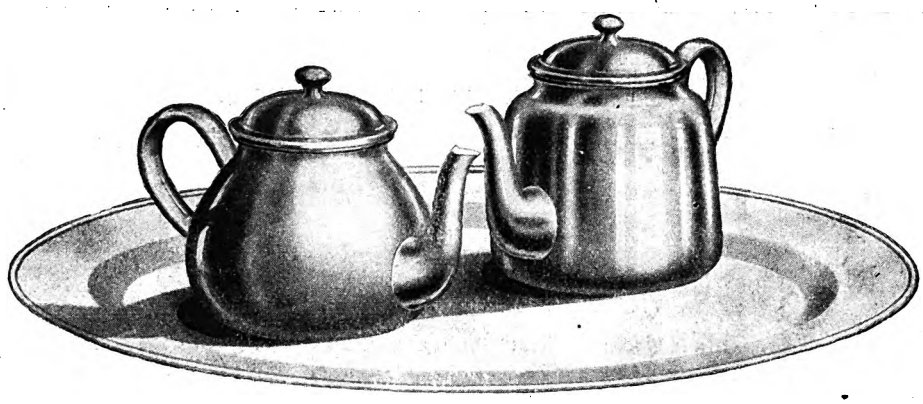


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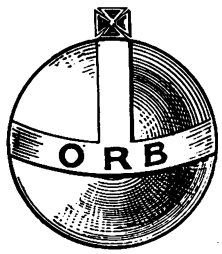
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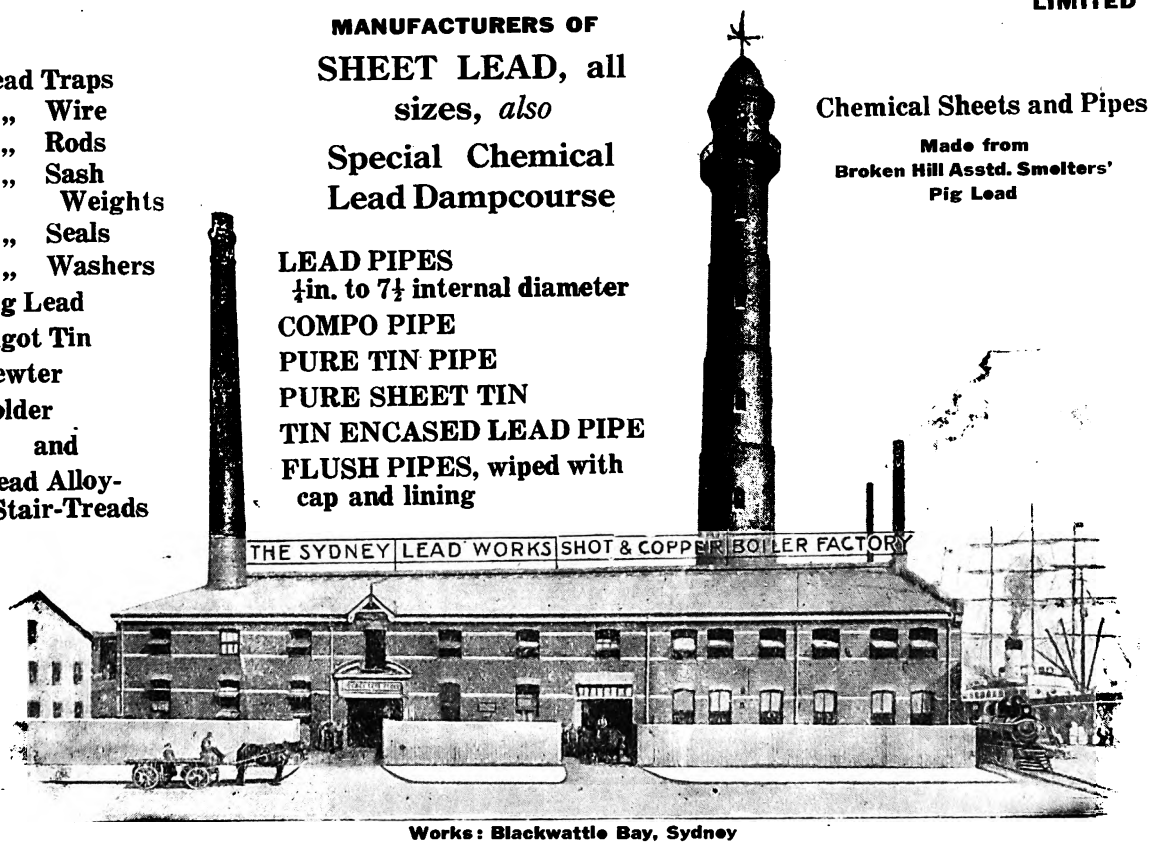
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10 Gallons
12 „
14 „
16 „
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} Light, Heavy, Extra Heavy

Gas Coppers

with Seamless Copper Boilers—Tinned

TRADE L S W MARK

10 Gallons
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14 „
16 „
} With or without Draw Off Tap

These Seamless Coppers are Solid Drawn in One Piece, of Even Thickness throughout and are made from the Finest Quality Copper. They are very strong and will last a life time.

Every way Superior to rivetted or brazed boilers. No Joints to leak or melt out.

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Samples of the new BALL-BEARING MOWER have arrived.
Made in 12-in., 14-in. and 16-in. Five Blades, 9-in. Wheels.

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Here are some of its features responsible for this popularity. A big hardwood mushroom type handle with fine polished mahogany finish, smooth die cast aluminum alloy frame, with ebony enamel finish enclosing the steel pinion. Precisely machine cut gear teeth that mesh smoothly and run quietly, a turned steel spindle fitted with a ball thrust bearing and an all-steel chuck with three hardened jaws, that center drills from 0 to ⅜ inch in diameter, closely and grip them tight.

The large gear is a smooth casting, finished in the distinctive Goodell-Pratt red enamel. All exposed steel parts are nicely nickel plated. It's a tool that will decidedly strengthen your drill sales. Add a few to your next specifications.

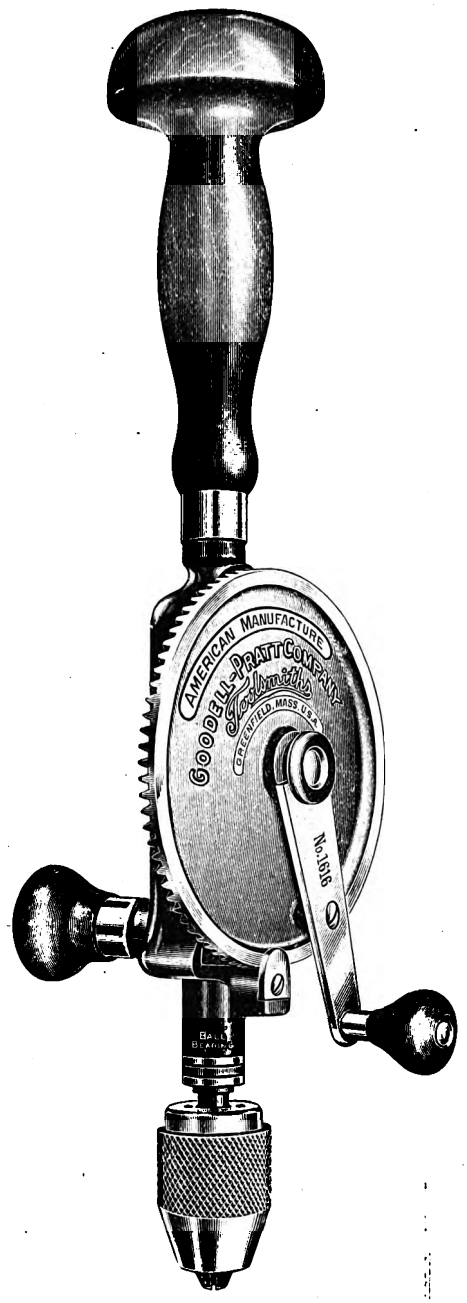
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Toolsmiths

Greenfield, Massachusetts, U.S.A.

Represented by

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No. 1616

HAND DRILL

Chuck capacity, 0 to ⅜ inches.
Length, 14½ inches. Net weight 2 lbs.

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1500 GOOD TOOLS

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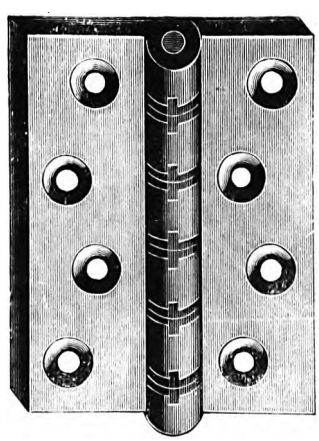
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For Heavy and Prolonged Service

These Hinges are fitted with Washers and Pins made from a special bronze alloy, having super wearing qualities. They supersede the steel-washered and steel pin class, are entirely non-rusting and possess features which ensure long and satisfactory service.

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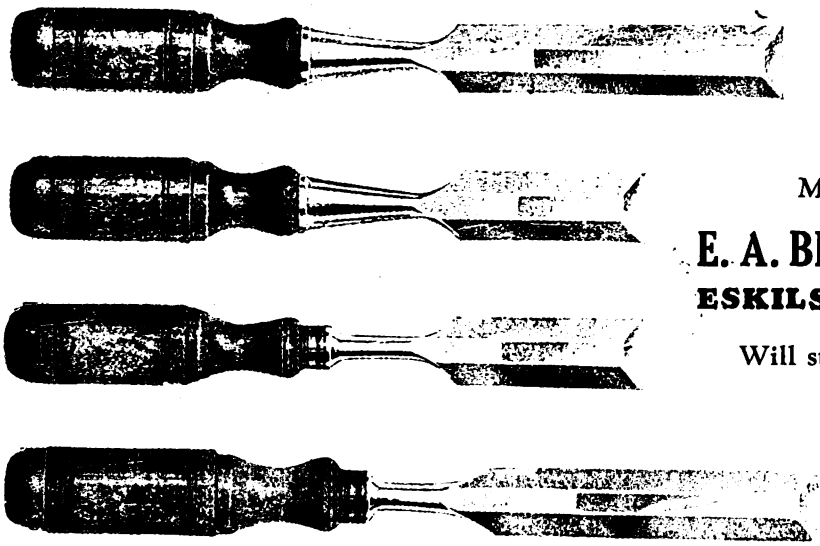
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Manufactured by—

E. A. BERG Mfg. Co. Ltd.

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Will stand up to Australian Hardwoods.

Stocked by leading Wholesale Houses.

KOHLSWA "ALL STEEL" BLACKSMITHS' ANVILS

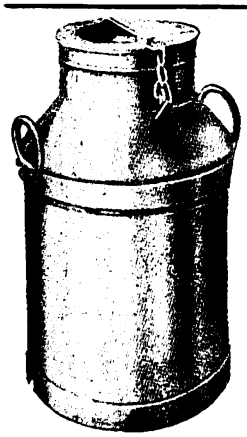
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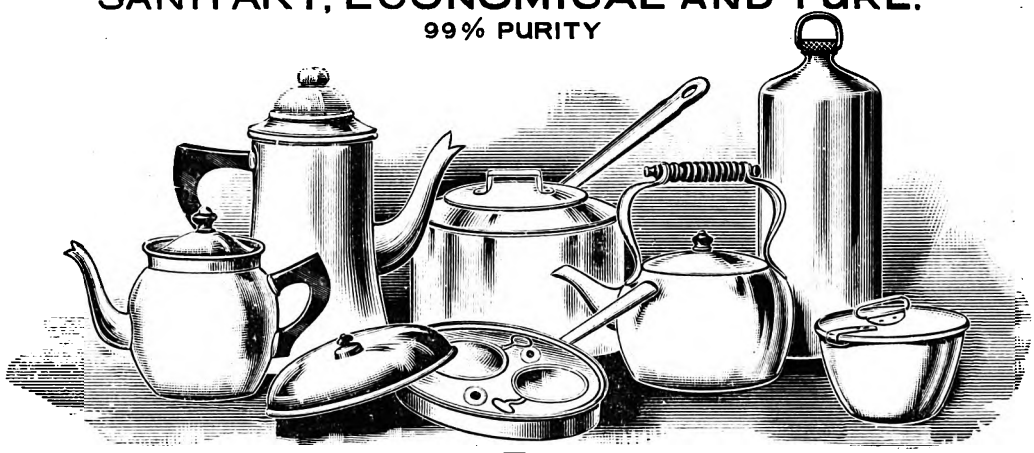
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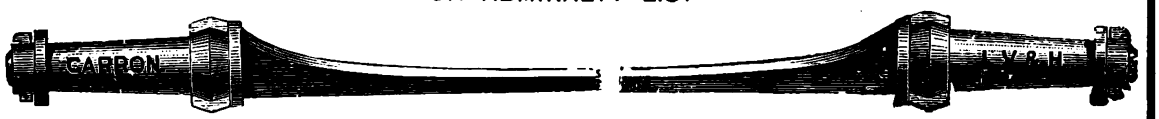
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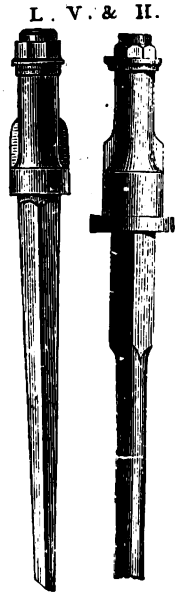
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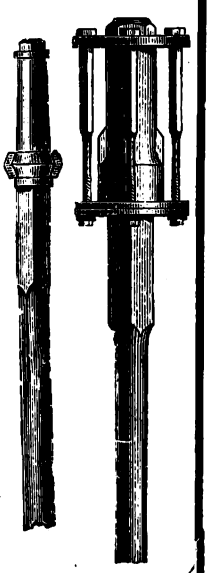
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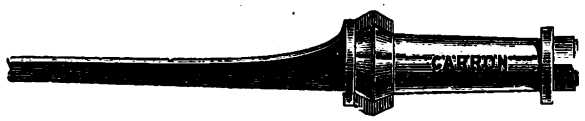
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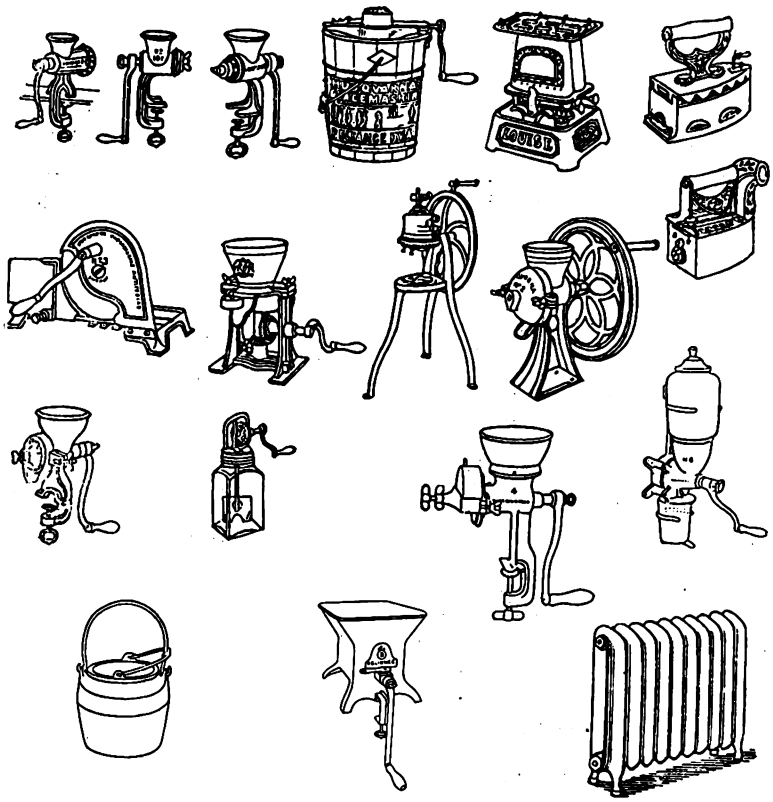
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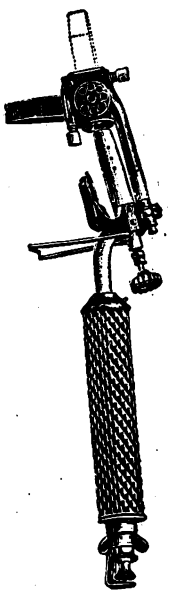
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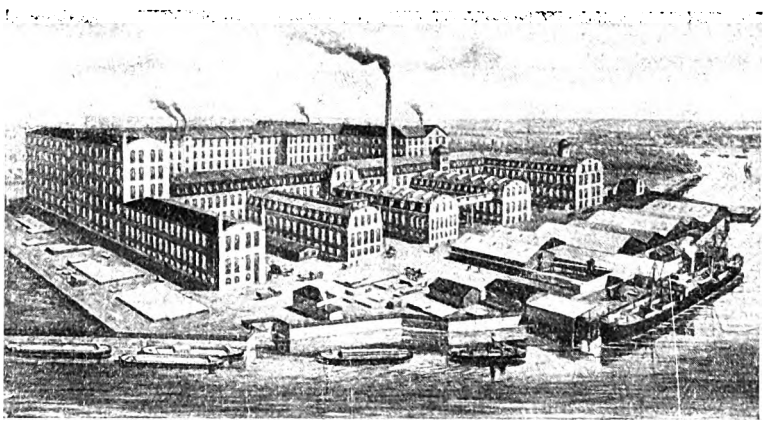
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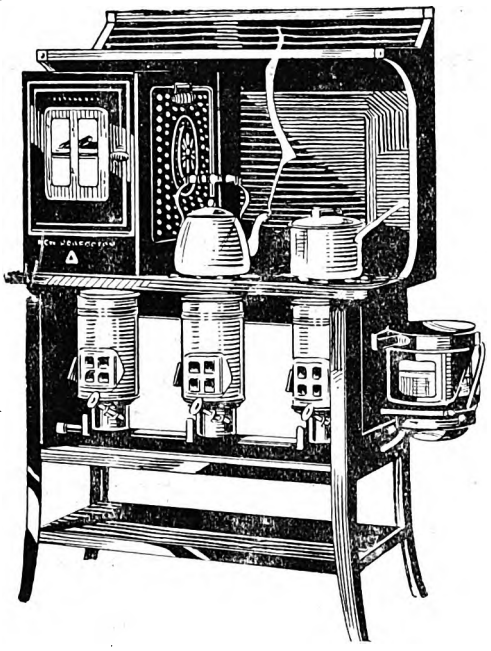
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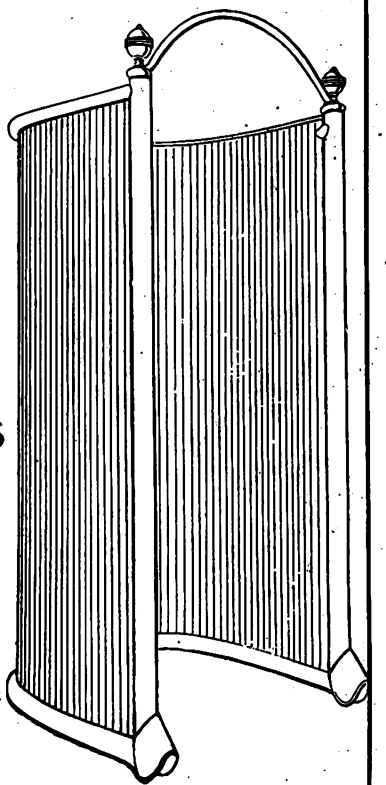
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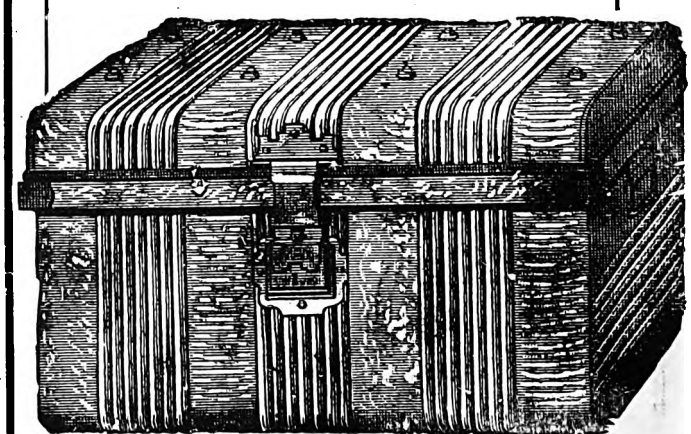
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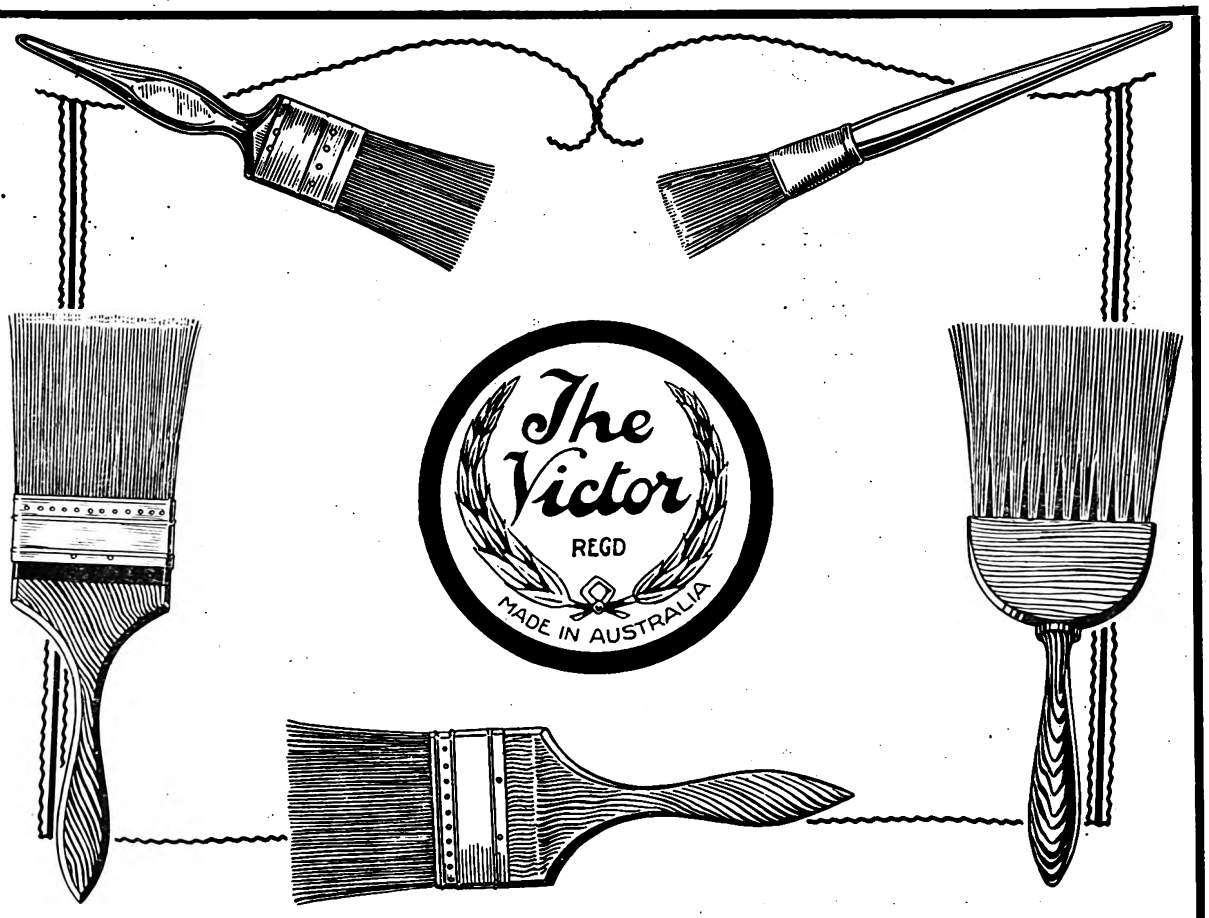
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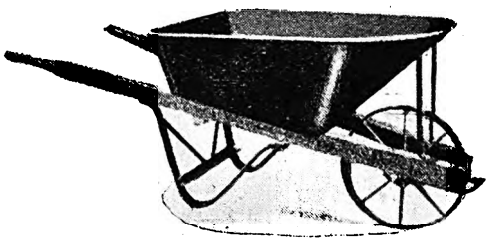
MASS PRODUCTION STEEL WHEEL BARROWS

Brown St., Norwood
South Australia

A. E. HALL

Est. 20-years
Telephone—
Norwood 1176

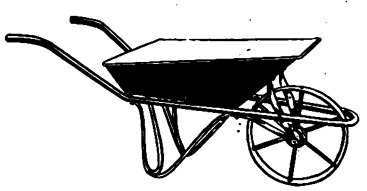
These concrete barrows have steel trays bent up and riveted from one sheet of 16 guage steel-plate, with 5/16 in. steel rod beaded around edge of tray making same absolutely rigid. The tray is firmly attached to the frame which is correspondingly braced to give a maximum of strength and a minimum of weight, thereby making it possible to carry the greatest load a man can handle, the greatest proportion of weight being on the wheel. This class of barrow is extremely satisfactory for use of contractors, etc. owing to its capacity and shape making it adaptable to practically all conditions.



Carrying capacity two cubic feet of wet concrete. Will carry the greatest load of liquid material that a man can wheel. Dirt capacity: Four cubic feet. Size of tray: Length 37¾ in. — Width 25½ in. Wheel: "Hall" Pattern No. 50 steel, diameter 16-in. Tyre: 1½ x ⅜. Weight approx. 75 lb. **PRICE 55/-**

Big discounts for lots nested together in parts for shipping.

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W. Aust. Government
Commonwealth Depts.
Broken Hill Mines
Port Pirie Smelters, etc.



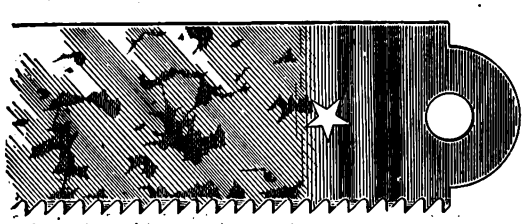
Size No. 102. Weight 56 lb.

TUBULAR STEEL BARROWS made in 6 sizes:

No.	Capacity	Price
100	1¼ cubic ft.	34/6
101	1½ ,, ,,	41/6
102	2¼ ,, ,,	49/-
103	3 ,, ,,	57/6
103½	4½ ,, ,,	66/6
104	3½ ,, ,,	57/6

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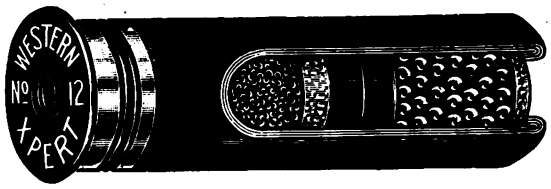


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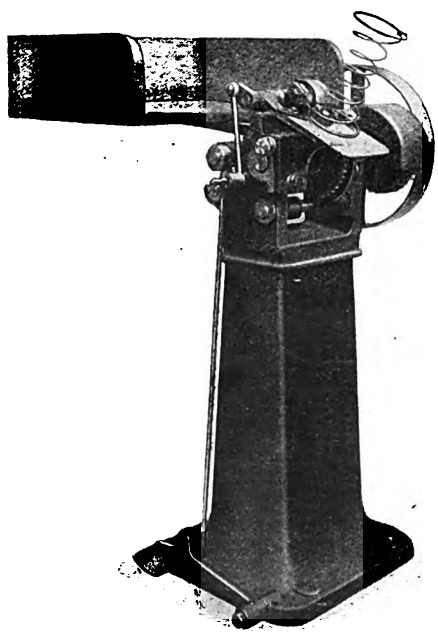


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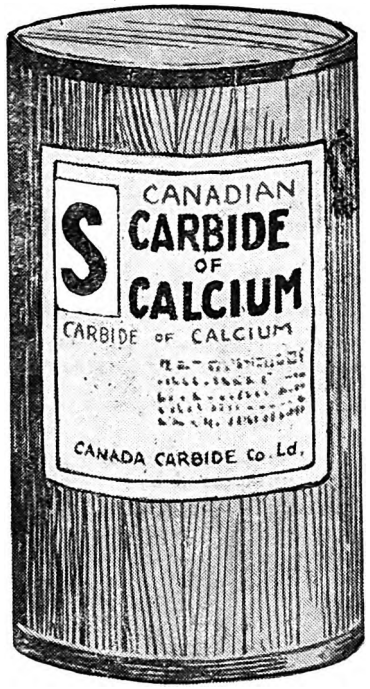
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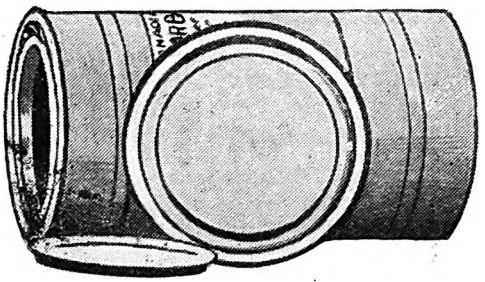
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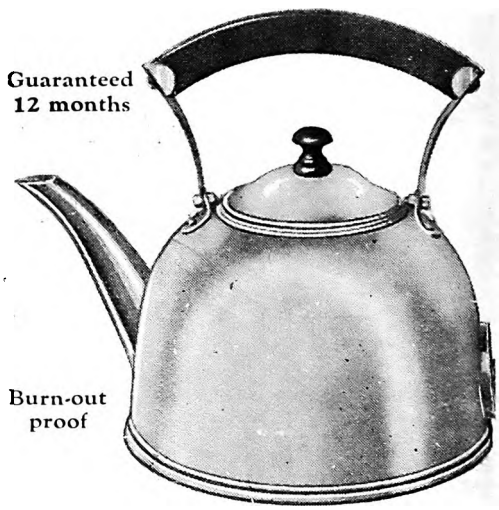
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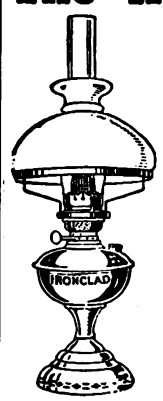
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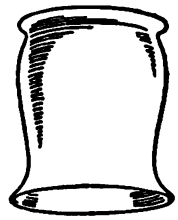
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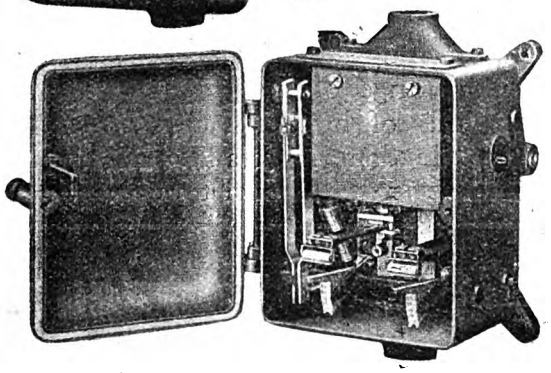


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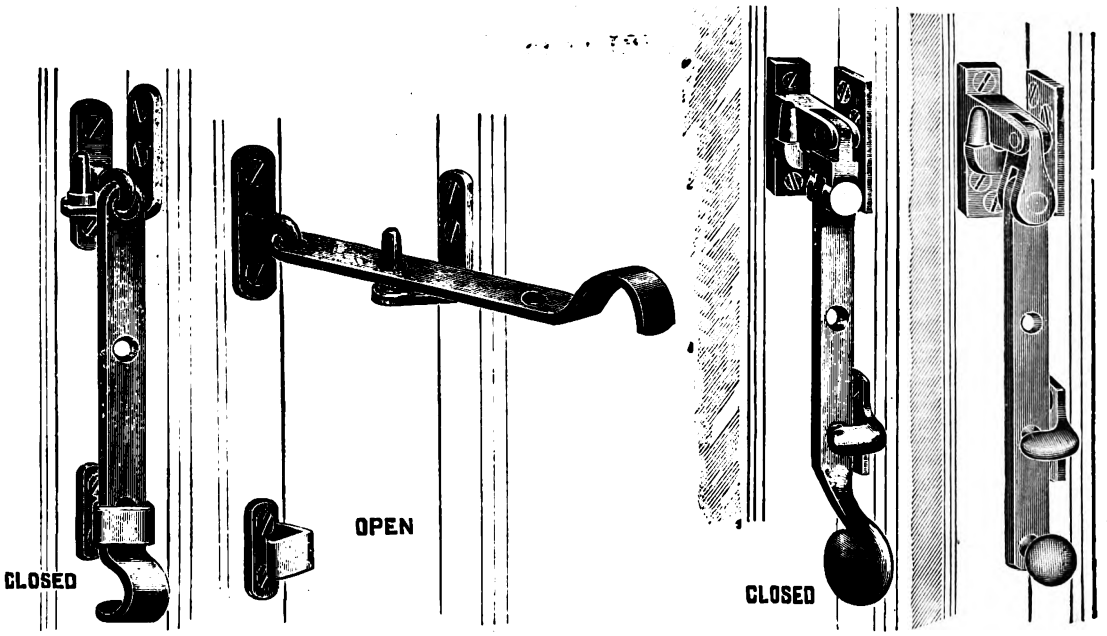
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Sanders' Patent Combined Casement Stay and Fastener

PATENT 7430/15.



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Brass, 8472

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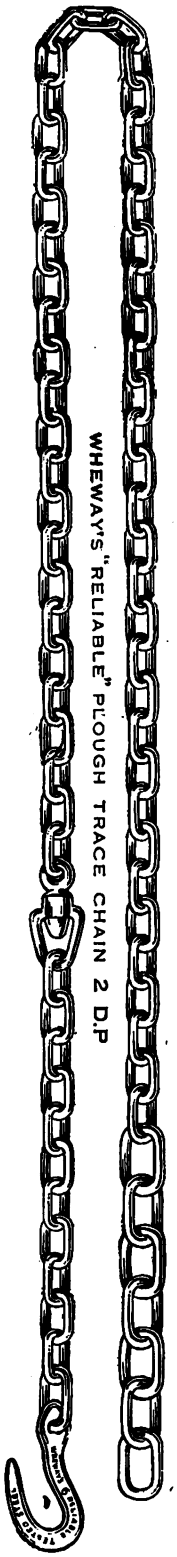
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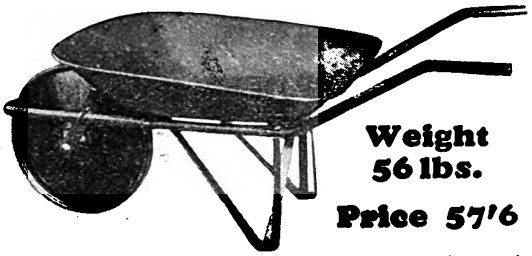
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Price 57/6

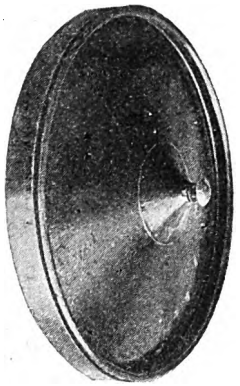
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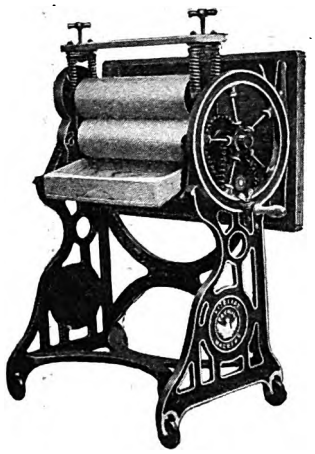
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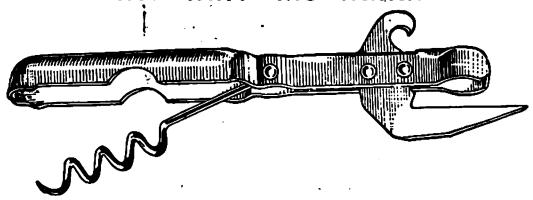
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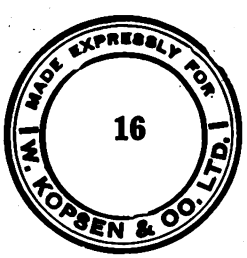
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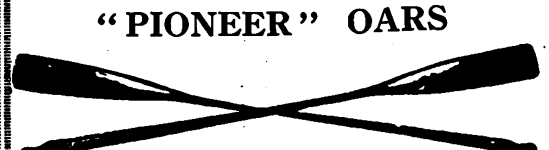
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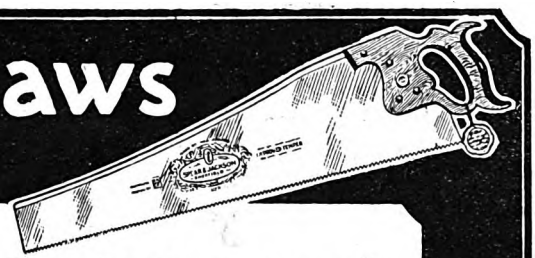
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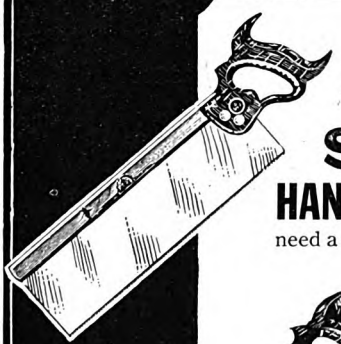
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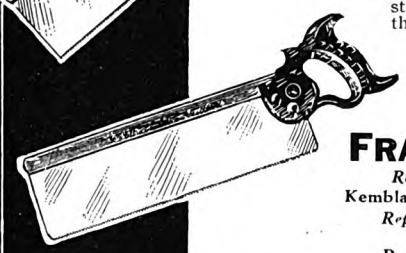




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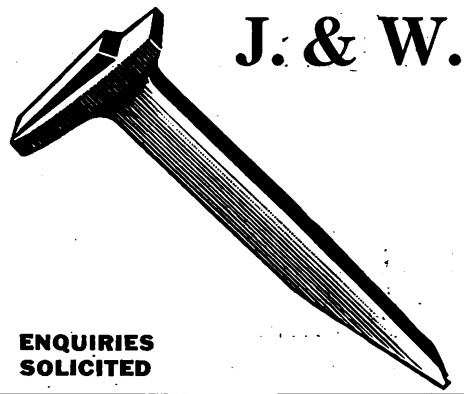
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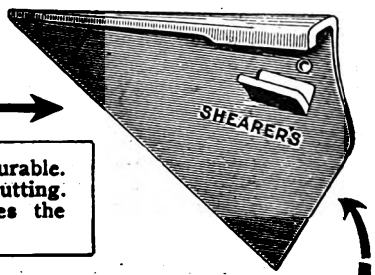
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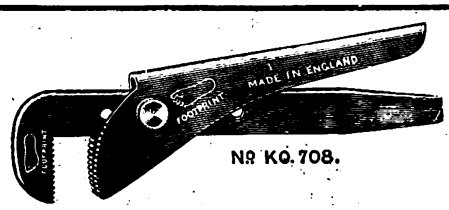
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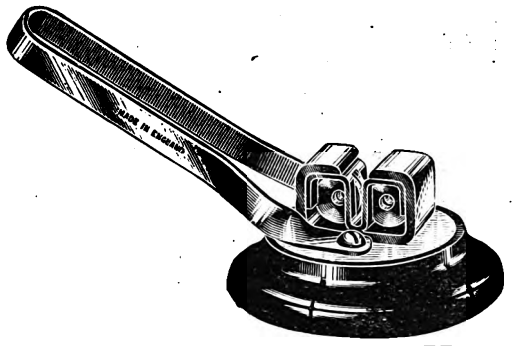
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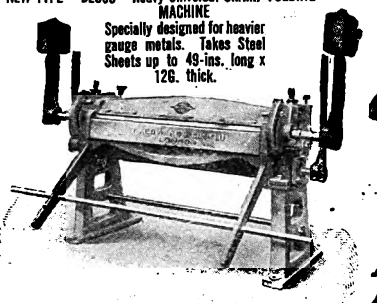
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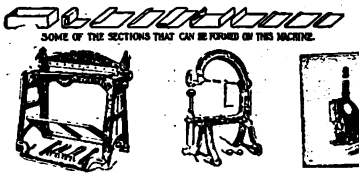
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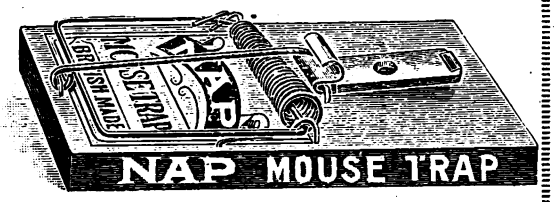
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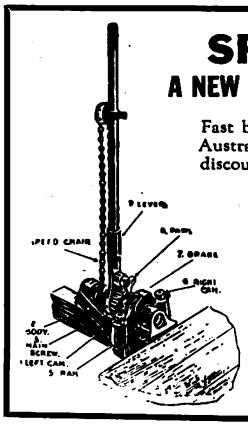
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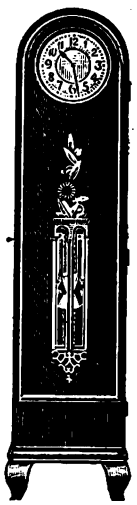


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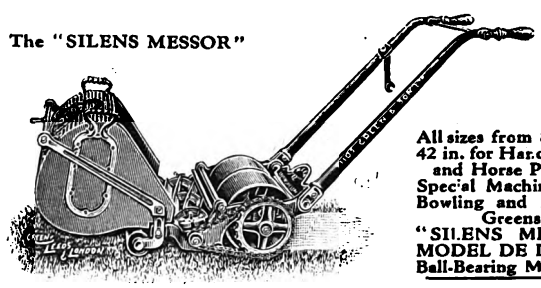


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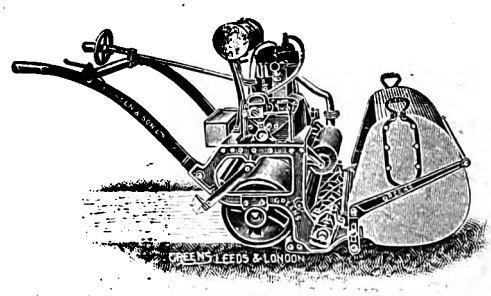


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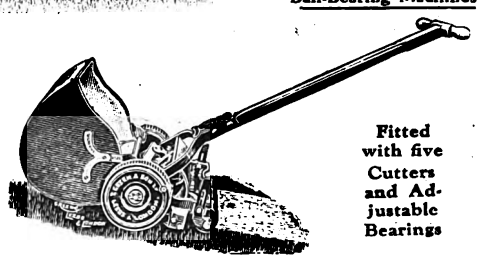
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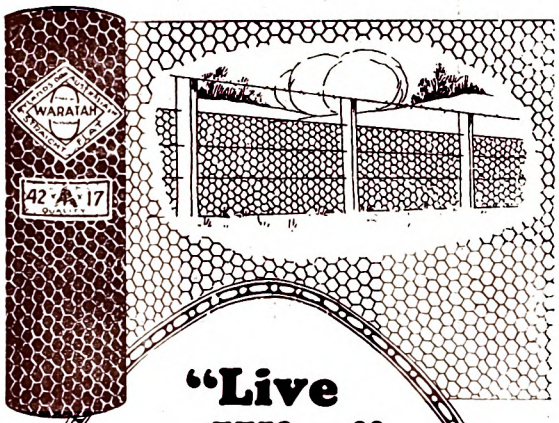
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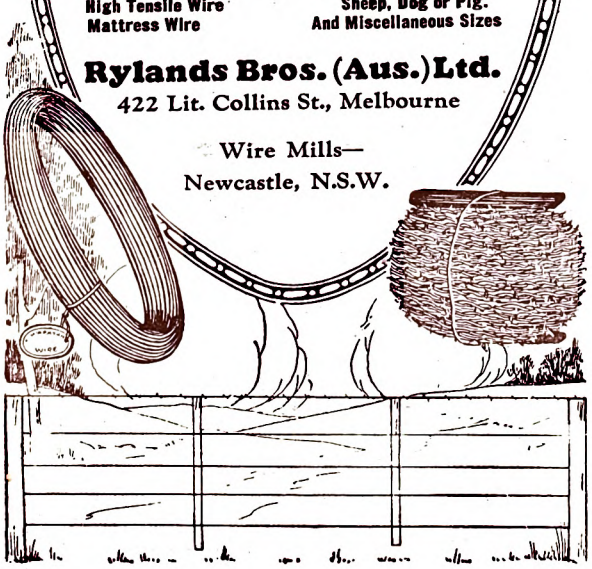
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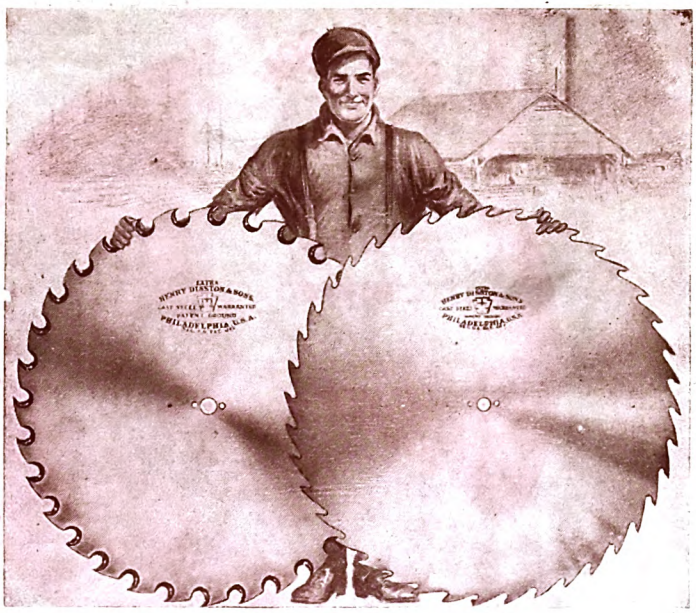


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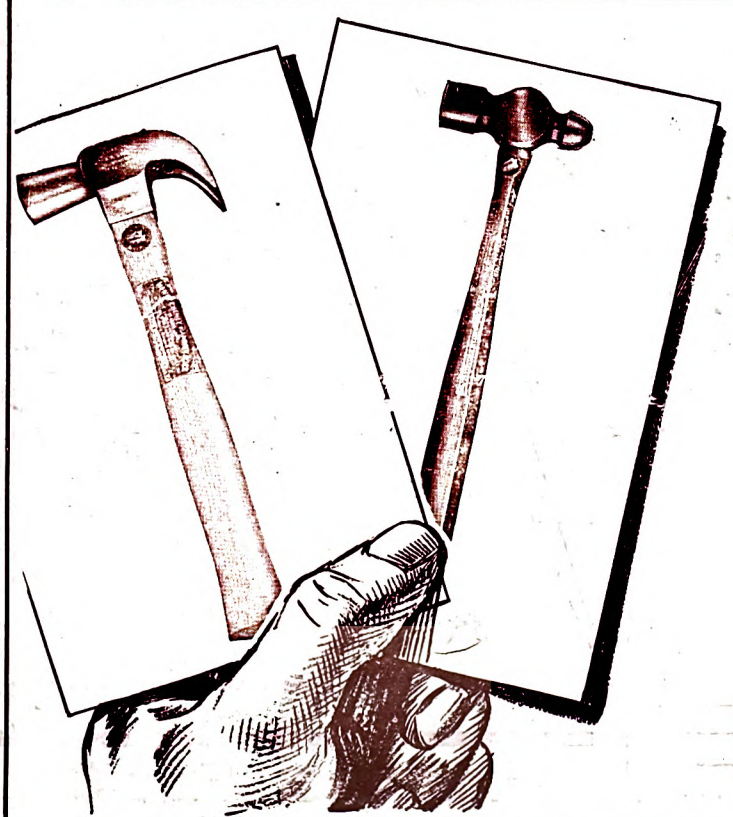
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